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Birthday Greetings to N.A.C.M.

WE—the editorial "we" of course—are not young enough to ignore the past, but neither are we old enough to live in the past.

Consequently we heartily approve of the type of birthday party the National Association of Cotton Manufacturers has planned for itself in Boston next week.

Its officers are conscious of its background of 75 years. They yield to the normal instinct to reminisce a bit. A suitable historical pamphlet has been prepared; the president will undoubtedly refer to the past in his address; and, it is to be hoped, ex-Senator Lippitt, as the oldest living ex-president of the association, will draw on his memories of years gone by.

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But all this is incidental. The party proper will have no trace of the tranquillity which tradition might attach to a 75th anniversary. Each slice of the birthday cake will contain a problem—a problem of the present and of the future.

We find a sesion devoted to "problems" confronting the industry today; one devoted to raw cotton and its "problems"; and one devoted to the "problems" of distribution.

Nor have the speakers been selected on the basis of their ability to propose a graceful birthday toast. They are men who have positive opinions; men who are apt to offer bombs, rather than flowers, as their gifts.

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Times have changed since the formation of the New England Cotton Manufacturers Association, the predecessor of the National Association of Cotton Manufacturers, 75 years ago. Much of the change has been concentrated within the last decade.

The line of cleavage between the aims of the northern association and those of the southern association has been eliminated. Through the National Council of American Cotton Manufacturers, and—more recently—through The Cotton-Textile Institute, both groups have tended to merge their activities toward a common goal.

Nor is there any longer a cotton manufacturing industry, as such. Rayon, silk and other fibers recognize no boundary lines today.

So "Textile Week" at Boston is a different type of party from the first meeting of the New England Cotton Manufacturers' Association. In the convention hall, and in the booths at the International Textile Exposition, North and South—cotton, rayon and silk, will merge.

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In extending birthday greetings to the National Association, we take our cue from the program committee of next week's meeting. To be conventionally correct, we offer congratulations on its 75 years of growth. Our major felicitations, however, are for the organization's future.

For this year, and for each year of the next 75, we visualize unprecedented opportunities. We see ahead breath-taking advances in cooperative effort, in industrial relations, in the shortening of processes, in the development of new fibers.

If the industry feels slightly "sick" at this birthday party, it can console itself with the thought that it is experiencing the growing pains of second childhood—not the second childhood of dotage but of rejuvenation.

The Week in Textiles

Outlook . . .

FABRIC PRICES have not followed cotton's recent advance and makers are disappointed in further constriction of profit margin. . . . . Many say cotton will go higher before it is lower and the situation is painful to the mill man. Further curtailment is in sight. . . . . Wool goods users seek spring duplicates. . . . . Underwear and hosiery have unsatisfactory Easter. . . . . Silks except for limited varieties uncertain with weak raw material market.

55-50 Brings New Members . . .

FURTHER CONVINCING evidence of the significance attached by the industry to the movement now under way for the adoption of a uniform maximum work-week in cotton mills is provided in the announcement that Donald Comer, president of the Avondale Mills, Birmingham, Ala., has joined The Cotton-Textile Institute. This adds a group of seven plants to the Institute's membership. George A. Sloan, president, stated that Mr. Comer had characterized the 55-50 movement as one of the most constructive steps ever undertaken in the industry. . . . . It is also known that interest in this movement impelled C. A. Cannon, president of the Cannon Mfg. Co., Kannapolis, N. C., to become allied with the Institute, as announced in these columns last week.

Aberle Decision Accepted . . .

ACCEPTANCE HAS been granted the Aberle wage arbitration decision with a display of good will on both sides. . . . . G. C. Aberle, speaking for the H. C. Aberle Co., thanked the arbiters and expressed hope the conclusions may work for the good of the full-fashioned industry. Details were given in these columns last week. . . . . Emil Rieve and Alexander McKeown, speaking for the union, said that the decision was inspired by a remarkable spirit of fairness and justice and should encourage the submission of other industrial controversies to similar arbitration. They also urged the principle of arbitration before rather than after a strike. . . . . An impartial arbiter will be appointed to interpret the Squires Committee decision.

A Body of Presidents . . .

ALL DIVISIONS of the textile industry, including cotton, rayon, silk, wool, linen, etc., joined hands Thursday of last week to form a Council of Textile Association Executives, at a meeting held in the headquarters of the New York Board of Trade. . . . . Charles L. Bernheimer was elected the first chairman and M. Leo Gitelson as vice-chairman. The association brings together presidents of textile associations for the purpose of solving problems common to the entire industry. . . . . A steering committee was appointed to work out details consisting of Peter Fletcher, chairman, National Council American Importers and Traders; W. L. Pierce, National Association of Finishers of Cotton Fabrics; H. C. Oppenheimer, Clothing Cotton Lining Converters Association; Henry Lauten, Converters Association; Benjamin Schwarts, Bias Fabric Manufacturers Association; H. S. Morgan, National Upholstery Textile Association; A. D. Whiteside, The Wool Institute.

For Better Ginning . . .

PRESIDENT HOOVER signed on April 21 the Buchanan bill directing the Department of Agriculture to investigate cotton ginning technique with a view to developing improved equipment and encouraging the use of improved methods. . . . . The bill authorizes an appropriation of $100,000 for the fiscal year beginning next July 1 for the purpose of establishing experimental ginning plants and carrying on the scientific and technical work pertinent to the object of the legislation.

Southern Textile Show . . .

ON OCT. 20, only six months hence, the Southern Textile Exposition will begin, and reports are current that the four hotels in Greenville are booked solid for exposition week. . . . . The Reservations Committee, composed of J. W. Vaughan, Jr., chairman; Hext M. Perry, John H. Spencer, and Mrs. W. W. Stover, state that there are available in boarding and private houses all the rooms necessary to accommodate additional visitors.

Cotton Crop Was Inferior . . .

FINAL REPORTS on cotton grade and staple for 1929 crop, as issued by the Bureau of Agricultural Economics, show that in nearly every respect 1929 ginnings were inferior to those of preceding year. Survey does not assign causes but simply gives facts for second year since its inception. . . . . In cotton year of 1929, total crop was 14,544,600 bales as compared with 14,296,500 for preceding year. Of these quantities, total tenderability ran 75.7% and 82.2% for 1929 and 1928 respectively while grades of white middling or better made up 63.2% and 69.2% of the two crops. . . . . Staple situation is not improving. Ginnings under one inch length were about the same for the two years, 77.1% for 1929 and 78.8% for 1928. However, the very short cotton was produced much more abundantly last year, lengths under seven-eighths inch having risen 20.1% against 14.4% in 1928.

Underwear Conference and Survey . . .

UNDERWEAR DRAWS governmental attention from two directions this week. Both seem aimed toward betterments. . . . . Federal Trade Commission will hold a trade practice conference at the Hotel Utica.

Utica, N. Y., May 26, beginning at 10 a.m., with Commissioner E. A. McCulloch presiding. The industry will consider a rule proposed to show the percentage by weight of wool contained in a garment and a rule regarding the labeling of part-wool garments. . . . . The other approach by the government is in the plan of the Department of Commerce for a limited survey of certain phases of the distribution of knit underwear. Changes in distribution, reflected more particularly in newer buying methods employed by large retail organizations, according to R. A. Cheney, secretary of the underwear association, have made a study, such as the Commerce Department might conduct, very desirable for this branch of the textile industry. The manufacturers will cooperate freely.

March Spindle Activity . . .

COTTON SPINDLES operated in March at an average of 92.8% single shift capacity, against 97.7 for February, 100.3 for January, 88.2 for December, 100.9 for November, and 108.7 for October. . . . . There were 28,898,464 spindles active in March out of 34,317,498 in place. . . . . Average spindle hours for the U. S. in March were 214, for New England 143 and for cotton growing states 270. The figures are from the Department of Commerce, Bureau of the Census.

To Divide Foreign Markets . . .

ANGLO-JAPANESE parity seems to be in the making as regards cotton goods exports, if not on the high seas. . . . . Reports from Yokohama state that British Consul at Osaka has approached Japan Cotton Spinners' Association, in behalf of Manchester interests, to apportion markets in the Eastern hemisphere. . . . . Under this agreement Japan would keep out of Africa, Near East, Europe and England, but have a free hand in India and South Seas. . . . . The pact has not been definitely concluded as yet, but domestic export merchants believe that it will go through.

Asks Farm Board Probe . . .

THE Southern Cotton Shippers' Association has joined forces with the Memphis (Tenn.) Cotton Exchange in seeking congressional investigation of the activities of the Federal Farm Board and cooperative associations now receiving Government aid through the board. . . . . The Southern shippers also adopted a request for the appointment by the American shippers of a committee of three, with authority to add to its membership representatives of banking and spinning interests, to appear before the board and other proper authorities, to "protest against the actions of the cooperative associations and the farm board."

Monthly Wool Goods Figures . . .

IMPROVEMENT IN women's wear is shown in the Wool Institute's report on production, billings and stocks in March as compared with February. . . . . Women's wear production was up 4%, billings up 19% and stocks down 4.4%. Billings and production of low-end goods made the sharp rise of 38%. . . . . In men's wear production was up 3.3%, billings down 2.5% and stocks down 7%. Stocks of worsteds alone alone were down 34.6%. . . . . March sales showed a gain for stripes in worsted patterns while in woolens stripes declined and plain and small weaves increased as compared with February.

Tariff in Last Stage . . .

TARIFF MAKING, so far as rates are concerned, is practically completed. Conference committee has agreed on all but five items, none of which affect textile industry. . . . . As to important administrative features, three basic changes are up for separate votes on floor of Congress—the debenture, the removal of the flexible clause, and reorganization of Tariff Commission. If Congress is sensible, it will kill the debenture, restore the flexible clause, and put the Tariff Commission in shape to do all tariff tinkering without disrupting the system every few years while law-makers grind through the deadly slow process of general revision. The best bet is that the debenture will be deleted and the flexible clause put back where it belongs. . . . . With good going, tariff bill may be out as early as middle of May.

The Lace Tariff . . .

SINCE PUBLICATION of tariff table last week, conference committee has completed sundries schedule. Lace paragraph, slated for drastic increases by Senate, goes back to existing level of 90% ad valorem. . . . . However, lace trade is excited about Paragraph 1504 which puts laces of ramie and similar fibers, suitable for millinery purposes, at 15% ad valorem if unbleached, 25% if bleached and 45% if part rayon. Rate on cotton and other laces is 90%.

Bonney

White sweater with navy blue sailboat motifs and knitted-in collar, from Bernhard Altmann of Berlin

A Textile Double-Header at Boston Next Week

Bachrach

Lincoln Baylies, President, National Association of Cotton Manufacturers, which meets April 30 and May 1

ADVANCE DETAILS of the individual exhibits at the International Textile Exposition, to be held in the Mechanics Bldg., Boston, next week, will be found in this issue, commencing on page 107. These descriptions, taken in conjunction with the floor plans of the various sections of the exposition which are reproduced in this issue, offer an accurate guide whereby visitors will be able to determine what features they are most anxious to see, and thus to utilize their time at the show most effectively.

E. F. Hathaway, President, Textile Exhibitors Association, which is behind the International Textile Exposition

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"TEXTILE WEEK" at Boston, April 28 to May 3, holds an appeal for men concerned with all phases of the industry. The double-header, comprising the International Textile Exposition and the convention of the National Association of Cotton Manufacturers will attract mill executives, production men, and sales officials.

The Textile Exposition

The exposition, to be held in the Mechanics Building during the entire week, promises to be one of the most comprehensive and interesting shows ever held. Over 150 firms will have exhibits, covering the latest developments in textile machinery, accessories and supplies. Advance accounts of these displays indicate a surprisingly large number of new features. In addition, a number of New England mills will exhibit finished goods of various types.

This exposition, to be held for the first time since 1926, has probably a greater significance than had any of its predecessors. The nation-wide construction movement, inaugurated by President Hoover to counteract unemployment and to stabilize general business, finds the textile industry unable to participate in the direction of actual expansion. However it can play its part through modernization of buildings and equipment—and in fact must play its part if individual mills are to meet increasingly competitive conditions. Consequently no type of machine attachment or accessory, which will aid manufacturers in their fight to reduce costs, will be too small to warrant close attention.

N.A.C.M.'s 75th Anniversary

The companion feature will be the 75th anniversary convention of the National Association of Cotton Manufacturers, to be held at the Copley-Plaza Hotel, Wednesday and Thursday, April 30 and May 1. Just as the exposition is timed to meet the particular situation in the industry from a production standpoint, so has the program of the convention been timed and planned to fit in with the best executive thinking among manufacturers today.

The movement toward the voluntary adoption of a uniform maximum work-week in cotton mills is the most important single activity now being conducted in the industry. Consequently it is particularly significant that the question of hours of labor will undoubtedly be featurned in at least three of the addresses scheduled for the Boston convention. Eben E. Whitman, vice-president of Wm. Whitman Co., Inc., Donald Comer, president of Avondale Mills, and Henry P. Kendall, president of The Kendall Co., all have positive views on this subject.

Mr. Whitman and Mr. Comer will speak at the opening session, Wednesday afternoon, April 30, commencing at 2:30. At this same session, A. D. Whiteside, president of The Wool Institute, will talk on "The Professional Institute of the Future."

Problems connected with the marketing and distribu-

tion of raw cotton will be discussed at the Thursday morning session, commencing at 10:30, by Carl Williams, member of the Federal Farm Board, C. O. Moser, vice-president of the American Cotton Cooperative Association, and Sydney Y. West, director of the American Cotton Shippers Association.

A Symposium on Distribution

The vital subject of distribution will be discussed at the Thursday afternoon session, commencing 2:30. The speakers will include R. H. Dick, president of Barrington Associates, New York; Elizabeth Macdonald, head of consumer research of the Frigidaire Division of General Motors Corp., and Allyn B. McIntyre, vice-president of the Pepperell Mfg. Co., in charge of sales development.

Mr. Kendall will be one of the speakers at the banquet Thursday evening. Greetings will be extended by Hon. Henry F. Lippitt, the oldest living ex-president of the National Association of Cotton Manufacturers, and Señor J. Rivero Quijano, president of the National Association of Cotton Manufacturers of Mexico.

Attendance at both the exposition and the convention promises to set a new record.

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A.C.M.A. Program for May 6-7 Meeting

ECONOMIC phases of present day problems in the textile industry, including the promotion of new outlets for cottons, will receive emphasis in the program which has been arranged for the annual convention of the American Cotton Manufacturers Association, at Pinehurst, N. C., May 6 and 7.

According to W. M. McLaurine, Charlotte, N. C., secretary of the association, an unusually large attendance is expected. It is reported that 22 States will be represented. Headquarters will be at the Carolina Hotel.

One of the features of the meeting will be the fashion show, consisting of a group of models, made in Paris from cotton fabrics manufactured in America. The display, which is to be presented by The Cotton-Textile Institute, will demonstrate the success with which cotton fabrics can be fashioned into fine garments.

The program contains interesting features touching current problems. It is as follows:

FIRST SESSION—TUESDAY, MAY 6, 10:00 A.M.

Invocation by Dr. Gilbert R. Combs, Pastor Myers Park Methodist Church, Charlotte, N. C.
Announcement of committees on nominations and resolutions.
President's annual address, by A. M. Dixon of Gastonia, N. C.
Report of secretary and treasurer, by W. M. McLaurine of Charlotte, N. C.
Address: Cotton Common Sense, by Fred W. Shibley, vice-president, Bankers Trust Co., New York.
Address: The Cotton Situation as Viewed by Federal Farm Board, by Carl Williams, member, Federal Farm Board.

SECOND SESSION—TUESDAY, MAY 6, 3:00 P.M.

Round-table discussion: Promoting sales and new outlets for cotton textiles, with Cason J. Callaway, president, Callaway Mills, LaGrange, Ga., leader.
Address: Cotton—Its Relation to the Textile Industry, by Allen F. Johnson, president, Consolidated Textile Corp., Lynchburg, Va.
Address: Value of Research to the Textile Industry, by R. E. Henry, president and treasurer, Duncan Mills, Greenville, S. C.
Address: Advertising and Merchandising, by Arthur C. Port, sales manager, P. H. Hanes Knitting Co., Winston-Salem, N. C.

THIRD SESSION—TUESDAY, MAY 6, 7:30 P.M.

Annual Banquet, Toastmaster—President A. M. Dixon.
Introduction of honor guests by Toastmaster.
Address by Dr. John L. Davis, "The Witty Oratorical Wizard."

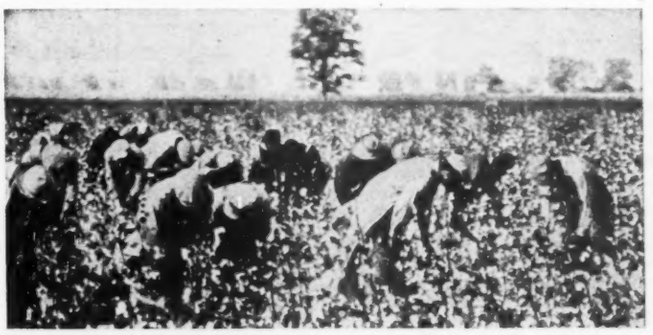
FOURTH SESSION—TUESDAY, MAY 6, 10:00 P.M.

Fashion Show, under direction of W. M. McLaurine, American Cotton Manufacturers Association and Miss Susan Bates, The Cotton-Textile Institute. Parisian costumes furnished by courtesy of The Cotton-Textile Institute; manikins courtesy of J. B. Ivey & Co., Charlotte, N. C.

FIFTH SESSION—WEDNESDAY, MAY 7, 10:00 A.M.

EXECUTIVE BUSINESS SESSION

Reports of Committees—
Cotton—S. M. Beattie, chairman, Greenville, S. C.
Traffic—Captain Ellison A. Smyth, chairman, Flat Rock, N. C., and Carl R. Cunningham, traffic manager Atlanta, Ga.
Arkwrights—T. H. Webb, chairman, Concord, N. C.
National Legislation and National Industrial Conference Board—Stuart W. Cramer, Cramerton, N. C.
Industrial Relations—W. D. Anderson, chairman, Macon, Ga.
Resolutions.
Nominations.
Election of officers.
Presentation of medal.
Unfinished business, new business and adjournment.



Textile Industry Must Charge a Fair Price For Its Product—

By Joseph D. Lazenby

Vice-president,
F. A. Lazenby & Co., Inc., Baltimore, Md.

THE GENESIS of the accompanying article is interesting. Mr. Lazenby was chatting with us informally in our office recently. As he talked about the troubles of the textile industry, we realized that he was producing, orally, an article we would like to run in TEXTILE WORLD. "When you get back home," we suggested, "why don't you put those thoughts in writing?" He consented, reluctantly.—*Editor.*

EVERYONE who thinks and who is close to the textile industry undoubtedly has an idea which will cure all ills, but the fact that invariably everyone stands on the side lines and shouts encouragement to those who are in the field instead of getting in and doing something, is perhaps why the ideas are not successfully carried out. There is, of course, the possibility that the ideas are not sound, and that the industry is not ready to be cured.

The three fundamentals in industry are: Merchandising, Machinery and Men.

to Effect Better Merchandising

IN DISCUSSING the merchandising phase, the textile industry is perhaps the oldest or second oldest in the world. For that reason its traditions and inhibitions are ages old and must be changed by education rather than legislation.

I heard a collector of axes discuss the time it took for an axe head to get to the end of the handle. He called attention to the original axes which had the blade in the center of the handle and which were used with both hands. As this seemed unnecessary, the handle was gradually shortened, but the total length of the handle was not shortened when the grip became so short that a man could not hold it in one hand, and there were still several feet of axe handle projecting from the other side of the blade which were not used. It was not until 1500 years had elapsed that the users of axes cut off the short handle and made the long end the handle. This rambling illustration may suggest the need for patience and education, also recognition of each and every improvement as it is made.

The textile manufacturer in the present scheme of things must buy his material, weave his cloth, carry stock for the consumer to draw upon, finance the consumer, and in many instances still be unpaid for his product when the ultimate consumer is wearing the cloth. The injustice of this system is readily realized, particularly as the industry deals in highly speculative commodities.

Contrast the merchandising system of the textile manufacturer with that of one of the younger industries—the automobile. The automobile manufacturer ships to his dealer with sight draft attached to bill of landing, he has no credit risk, his product is manufactured on a basis of cost of material, and his money is used solely to manufacture his automobile. In the same way, the dealer demands cash for his product, and if you or I wish to buy his automobile, we borrow the money from the finance company or bank. In this way the burden of carrying is distributed to the individual owners. The manufacturer builds automobiles, the dealer sells automobiles and the bank finances automobiles.

In the textile industry, the manufacturer finances the manufacture of his goods, finances his selling operations, finances his consumer and, in fact, carries the bag in every department.

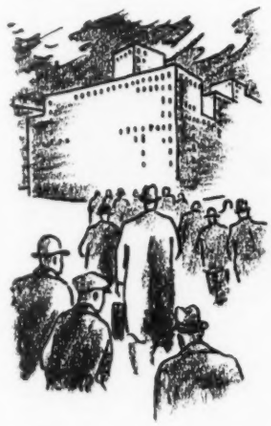
It is quite interesting to note that everyone recognizes the futility of asking any automobile manufacturer to reduce the selling price of his machine.

In connection with merchandising, it is interesting that practically every industry, except textiles, recognizes the obligation of the management of the mills to the stockholders, and prices their product accordingly. Although the textile industry is basicly essential, and should and could earn adequate returns, the heathenish practice of

price-cutting has absolutely stifled progress and dividends.

Except in rare instances, the fact that the cost of textile products is low, does not stimulate the consumer to purchase an extra suit of clothes, nor an extra bedsheet, and indicates that the slight increase in the cost of the finished product which would change the entire complexion of the industry would not affect the consumption at all.

to Attract Better Men



THE question of men in the industry begins with the lowest priced employe and continues to the highest priced executive. That the whole industry thinks in terms of limitation was illustrated in the conferences of industrial leaders which Mr. Hoover called some months ago. Every industry pledged to spend billions in expansion and effort to offset the depression, but the textile industry representatives stated they dared not think in such figures.

Our industry must certainly change its ideas of values, so that instead of losing its man power, it can attract brains to it. The writer has been appalled at the number of night watchmen, draymen and people holding comparatively menial positions, who were formerly weavers or skilled operators in textile mills, but who found the precarious income not adequate when compared with the wages of their present occupations.

It is interesting that graduates of technical schools going into other industries start with a larger salary than graduates of textile schools receive after years of service.

This dissertation should not be construed as destructive criticism, for when a person is sound asleep, it often requires a jar to arouse him. It is my opinion that if a jar would arouse the average sleeper a good stiff charge of dynamite should be put under the textile industry.

THE question of machinery carries, in the writer's estimation, a similar discussion as does merchandising and men. The fact that the price per ton of textile machinery is lower than equipment in any other industry tells the story. When a firm asks a price for its equipment which will yield them a profit commensurate with the service the machine renders and its cost to build, they are immediately characterized as highway robbers.

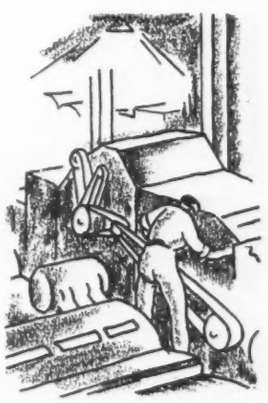
This attitude of the purchasers of textile machinery stifles the initiative of the machine builders who realize that unless they can sell what they make, it is useless to make, and because the machinery builders cannot sell what they make, they cannot pay adequately for their men. This drives good men out of the industry. The average salesmen to the textile industry is by no means the caliber of man that the average salesman is, for example: to the machine builders.

An interesting illustration of the difference in the thinking of textile mills and other industries is illustrated by several instances. For example, a railroad executive said that if a machine costing $5,000 would replace one laboring man, they could not afford not to buy the machine.

The writer has heard many times when presenting an analysis to a textile executive, which showed that an expenditure would pay for itself within four years, that there were many places in his mill where an expenditure would be paid for in four months. Contrast this condition with the well known experience in one of the big steel mills having a plant costing $1,500,000 which was scrapped without ever having turned a wheel, because a new idea in machinery had been found.

It is all very well for people to kick a man who is down, for perhaps instead of criticising and condemning the industry, if a suggestion for improvement could be offered, it would help. It is interesting that the American Telegraph & Telephone Co., is the foremost exponent of research, that it has constantly reduced the cost of its service, and the reason it has done this is because it has always insisted upon a profit on what it sold, and is perhaps the richest company in America. In other words, it has made money, has spent money, and has continued to make money because it has spent money, and has money.

to Operate Better Machinery



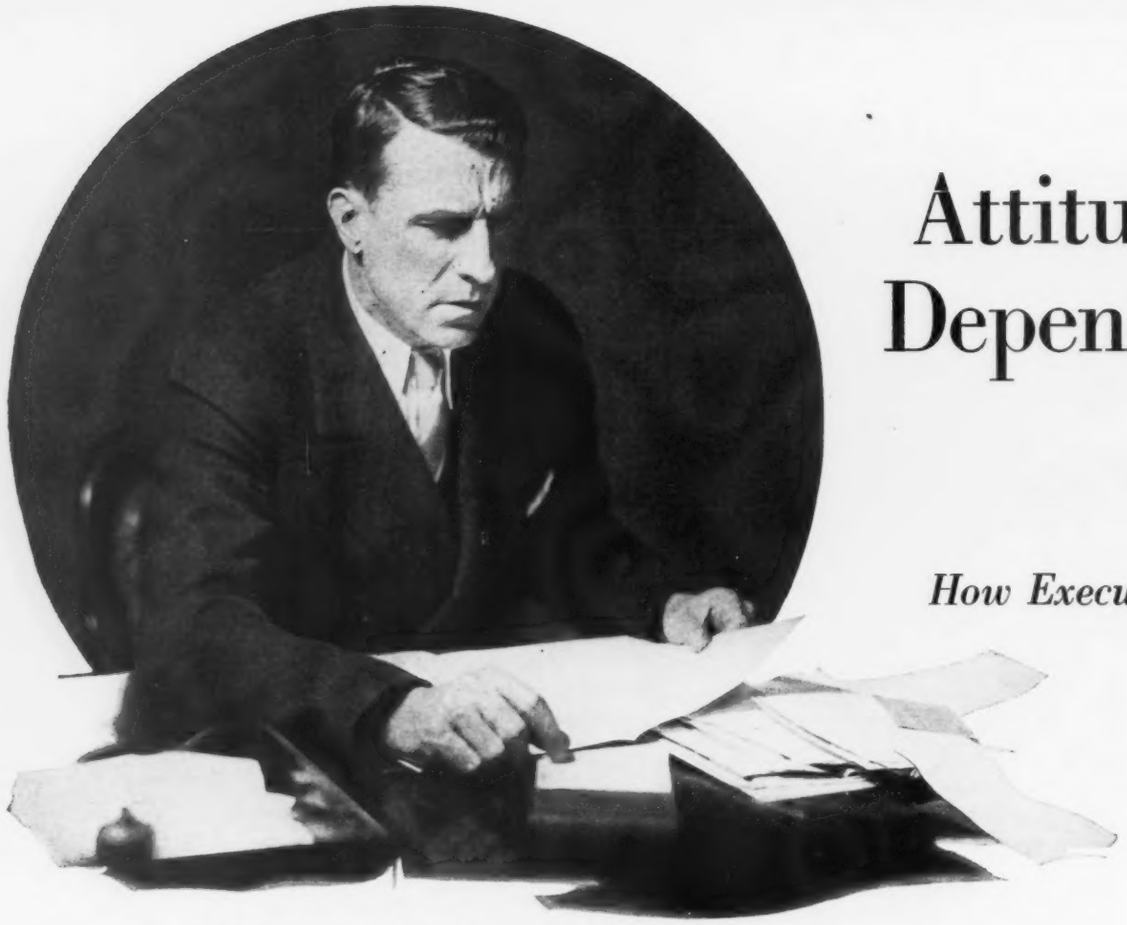
It is all very well to criticise a man who has a hole in his trousers, but before he can remedy the difficulty, he must either be given the wherewithall to do this, or must be shown where he can earn the necessary funds. In the same way, the textile industry cannot spend what it does not have, and it cannot have any more than it has at the present time until it charges adequately for what it makes.

In other words, in my humble opinion, the textile industry must first, as a whole, charge a fair price for its commodity, eliminate the practice of price-cutting and revamp its entire system of merchandising before real improvement can be expected.

INDUSTRY must spend money to make money, points out Mr. Lazenby, and the textile industry must first price its goods to show a profit in order to have the money to spend for research and improvement.

Attitude of h Depends on M His Bo

How Executives Shape Thei



Mr. "A," Who Is a Stickler For Detail

EXECUTIVES may be divided into two general classes in accordance with their attitude toward the industry under their control. The first is interested in details and judges those under him by their method of handling the innumerable details of the business. The second is interested in final results and judges those under him by their success or failure in obtaining those results.

The first, whom we call "A," delves into every corner of the business for the information by which he judges subordinates. He allows his employes little latitude and insists on passing judgment on their methods of handling all the intricacies of their duties. The second, whom we call "B," judges his subordinates from carefully compiled records of the results accomplished. He allows them the broadest latitude in selecting the means of accomplishment as long as the results are satisfactory.

Let us first consider the methods of "A" and their effect on the morale of his organization.

Management Based on Details

It is evident that it would be impossible for any executive to examine all details handled by his sub-executives, to determines those correctly and incorrectly handled, and to pass judgment in accordance with the percentage of correct actions. As it is impossible to cover all actions, and as correct actions are inconspicuous, "A" judges his subordinates in accordance with the number of mistakes which he finds in their respective departments.

Dealing constantly in what is wrong, his association with his subordinates degenerates into discussions of their errors and faults, and impatience at their inability to avoid them. His attitude tends to become pessimistic and fault finding.

The continual concentration of "A's" mind on the failings of his subordinates gradually undermines his confidence in them. He soon comes to feel that he is surrounded by incompetents and that what success the business attains is due only to his untiring energy and his intimate contact with all details. For this reason he requires the bringing of all matters of any importance to his attention and he demands his approval of all expenditures or changes contemplated by his subordinates. This brings a mass of detail to his desk which allows him only time for superficial snap judgment on each matter.

He is habitually critical of suggestions and usually does not hesitate to express his displeasure with those which he does not approve.

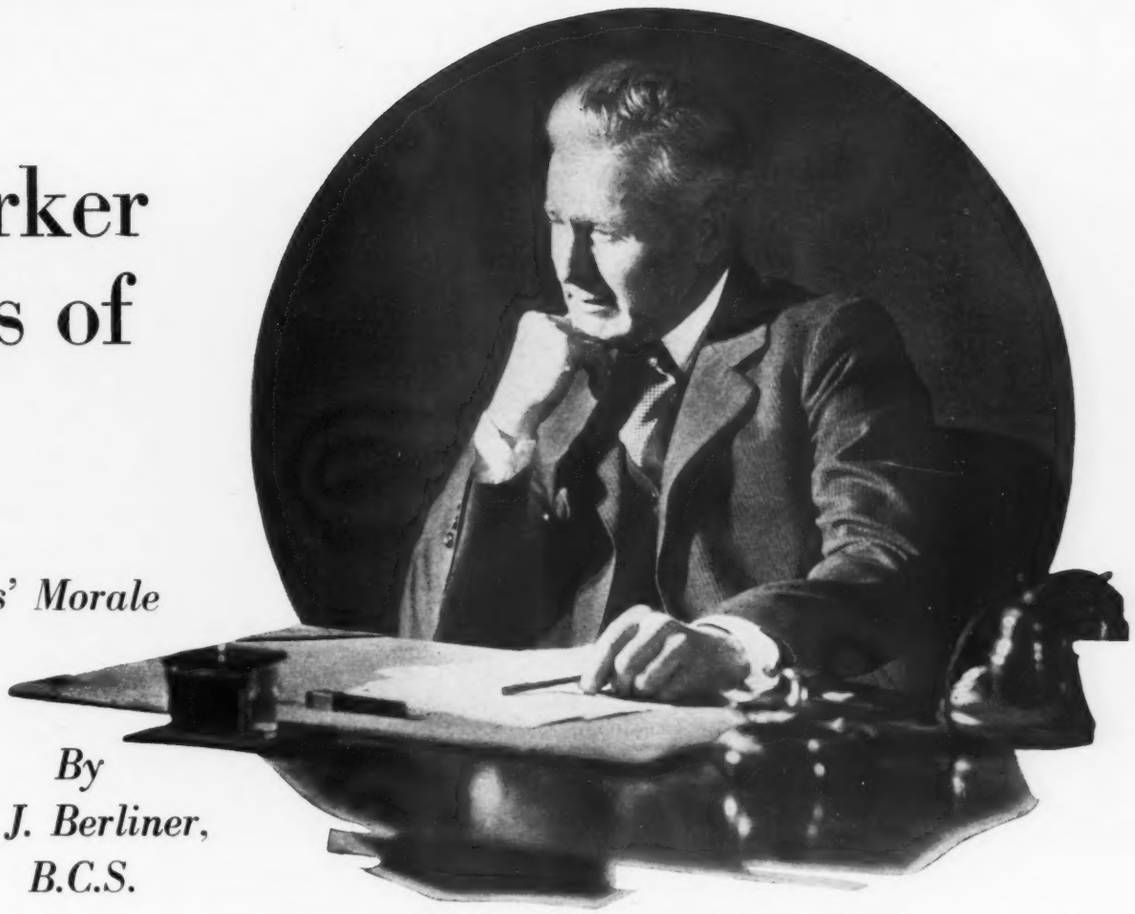
Morale of Employes

The subordinates regard this attitude as an indication of dislike for them and dissatisfaction with their ability and methods of working. They feel that their abilities are not appreciated and that their positions are insecure. They gradually lose confidence in themselves, and studiously avoid any actions which may possibly result in mistakes which will be criticized. Angered by the criticisms of their superior of details in their department, they are doubly severe in the criticism of those responsible to them; and the morale-destroying policy of the manager is thus carried down to the lowest members of the organization. The subordinates resent "A's" often unfair criticism, and since the whole process of submitting suggestions is so disagreeable and liable to lead to arguments and friction which may endanger their posi-

f he Worker n Methods of is Boss

pe Their Employers' Morale

By
J. J. Berliner,
B.C.S.



Mr. "B," Who Looks Only For Results

tions, they prefer to let slide any but the most important improvement rather than to make suggestions.

"A" is by no means an unusual character and is, in fact, a type of executive frequently met. He is conscientious and sincere. He prides himself on his intimate contact with the business and feels that his methods keep his organization on its toes. He thinks his employes like and respect him, because they find it advisable to create this impression and he is necessarily a hard worker. No one would be more surprised than "A" himself to hear that his entire management is disruptive and depressing rather than constructive and stimulating.

Management Based on Results

"B" is an entirely different type of manager and probably, in the majority of cases, less brainy than "A." He abhors details and is impatient when they are brought to his attention. He is interested in results only, and considers it the function of his subordinates to devise the details necessary to obtain them.

While "B" is not interested in details, he is intensely interested in accomplishment, and he provides himself with records which show him the exact progress made by each of the executives under his supervision. He is insistent on the accuracy and fairness of these records, as it is his policy never to praise or censure his subordinates except on indisputable evidence.

First, he is interested in production: the possible, the actual, the production per employe, and the production per dollar expended. Second, he requires a knowledge of the efficiency of his equipment: its productive time; its efficiency while producing; and its time idle for repairs, set ups, lack of materials, shortage of orders, absence of employes, etc. Third, he is interested in labor conditions average earnings, overtime, lateness, absence, turnover, and the non-productive percentage. Fourth, he receives records of material: cost, spoilage, waste, rejections, and data relating to the percentage of rejections assignable to various causes. Fifth, he follows delivery and obtains records of the percentages of orders delivered when promised or late in comparison with promises or schedules. Sixth, he requires a knowledge of the costs of material, direct labor, non-productive labor, overhead, spoilage and rejections, repairs and maintenance, expenditure for expansion or improvement, and the percentage of these costs to total cost.

Armed with these figures he is able to judge correctly accomplishment or failure, to determine the fundamental underlying causes, and to compare the results obtained by the various executives under his control. "B" discusses with his subordinates, both individually and in committees, the various policies which obtain the most favorable results. These include the efficacy of interdepartmental systems and relations, the types of inducement and the attitudes toward labor which result in the greatest individual production, the inspection and repair policy which entails the least expense and loss of time to equipment, and other kindred subjects.

His attitude toward his sub-executives is one of encouragement and stimulation to greater accomplishment. He never intimates a lack of faith in their ability to accomplish if they apply their full energies to the work. He gives them the broadest latitude in expenditures and the direction of the details of their departments, but holds them strictly accountable for the results obtained by such

(Continued on page 104)

Commission Changes Trade Practice Policy

By I. D. Foos

of TEXTILE WORLD *Washington Office*

TO FORESTALL the possibility of a breakdown in its trade practice conference system, the Federal Trade Commission has taken action that, while restricting its usefulness, preserves the integrity of the plan by which many and various industries are seeking to rid themselves of unfair and uneconomic practices. Commissioner William E. Humphrey frankly explains that the Commission has decided to exclude from all trade practice codes in the future, rules which, it has been advised, are being abused, although it has no evidence of its own of such abuse.

Outerwear Code Issue

The issue regarding the Commission's policy on trade practice codes has come to a head in the recently adopted code of the knitted outerwear industry. Harold R. Lhowe, counsel for the National Knitted Outerwear Association, described the rules in the form approved by the Commission on April 17 as "mere legalistic statements applicable to any industry" and declared that if they truly represent the Commission's present policy the entire trade practice conference procedure "might as well be junked."

Claiming that the Commission had rejected every concrete proposal for correct business practice proposed by the knitted outerwear industry, Mr. Lhowe urged that if the Commission, in its desire to aid industry, has gone beyond the limits of its authority under the Federal Trade Commission Act, it should issue a statement of its new interpretation of that act under which it will now proceed in trade practice conferences.

Mr. Lhowe's statement was read at a meeting of the Commission on April 24 but Charles H. March, the member of the Commission who presided at the conference of the knitted outerwear manufacturers last November, stated that, in the absence of Commissioners Humphrey and McCulloch, the Commission would not issue a statement outlining its policy. Although an explanation is not forthcoming from the Commission, the answer is that, in the perfunctory handling of numerous trade practice conference codes, rules have been approved which the Commission (sensitive to an attack by Rep. Patman of Texas, with reference to its trade practice conference work and to reports that the rules have been used to restrain trade) now vetoes as extending beyond the scope of the judicial interpretations placed upon the unfair competition and anti-trust laws.

In stating that the Commission's policy will be stricter than it has been, Commissioner March said that "the only fellows who will object to the future handling of trade practice conferences are those who want to do something that the law will not permit them to do."

The extent to which the Commission now is bending backward in the promulgation of trade practice codes is plainly evident in the rules approved for application in the knitted outerwear industry. The industry condemned price discrimination between customers of the same class, secret rebating, selling goods below cost and shipping goods on consignment without bona fide orders. These were accepted by the Commission as unfair methods of competition only upon the condition that the effect of such practices must be to injure a competitor, to substantially lessen competition or to tend to create a monopoly, thus conforming to the letter of the Clayton law.

In view of the present developments, the trade will watch with interest the outcome of the trade practice conference of the knit underwear group that is scheduled for May 26 at Utica. Developments may follow annual meeting of U. S. Chamber April 30.

The knitted outerwear code, as revised by the Commission follows, Group One being affirmatively approved and Group Two being cited only as "expressions of the trade:"

GROUP 1

Rule 1. (formerly Resolution 2)
The false marking or branding of knitted outerwear products for the purpose or with the effect of misleading or deceiving purchasers with respect to the size, quality, yarn content, or construction of the products is unfair trade practice.

Rule 2. (formerly Resolution 3)
The sale or offering for sale or advertising of any knitted outerwear product with intent or effect of misrepresenting same as to size, quality, yarn content, construction, or service and thus deceive or mislead customers or prospective customers, is fraudulent and an unfair trade practice.

Rule 3. (Resolution 4, in part as modified)
Any discrimination in price between purchasers of the same class, not including discrimination in price on account of the difference in grade, quality or quantity of the product sold, or which makes only due allowance for differences in the cost of selling and transportation, or discrimination in price in the same or different communities, made in good faith to meet competition, where the effect of such discrimination may be to substantially lessen competition or tend to create a monopoly, is an unfair trade practice.

Rule 4. (Resolution 4, in part as modified)
The secret payment or allowance of rebates, refunds, or unearned discounts, whether in the form of money or otherwise, or secretly extending to certain purchasers special services or privileges not extended to all purchasers under like terms and conditions, with the intent and with the effect of injuring a competitor and where the effect may be to substantially lessen competition or tend to create a monopoly or to unreasonably restrain trade, is an unfair trade practice.

Rule 5. (formerly Resolution 10)
The selling of goods below cost, with the intent and with the effect of injuring a competitor and where the effect may be to substantially lessen competition or tend to create a monopoly or to unreasonably restrain trade, is an unfair trade practice.

Rule 6. (formerly Resolution 11, in part)
The shipping of goods on consignment, without bona fide orders, with the intent and with the effect of injuring a competitor and where the effect may be to substantially lessen competition or tend to create a monopoly or to unreasonably restrain trade, is an unfair trade practice.

GROUP II

Rule A. (formerly Resolution 1)
The practice of usurping designs, originated by another, and appropriating them for one's own use within one year after such origination, thus depreciating or destroying the property of a competitor, is wholly improper from every standpoint and is condemned by the industry.

Rule B. (formerly Resolution 7)
The Knitted Outerwear Industry approves the policy of each individual concern stating to the Purchasing Trade definitely its individual terms of sale in connection with all price quotations made by it, and in connection with all its orders and acceptances.

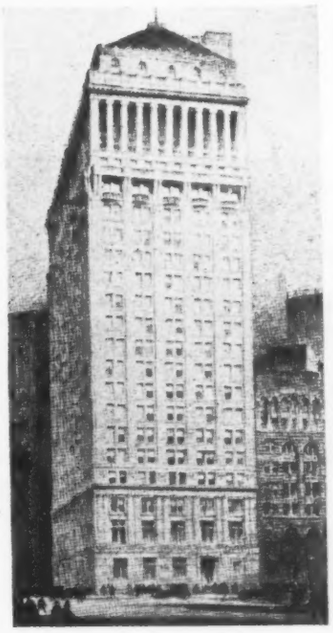
Rule C. (Resolution 4, in part as modified)
The Knitted Outerwear Manufacturers hereby affirm their policy of reserving absolute freedom in individually establishing their own prices on their individual products and in changing the same at will.

Rule D. (formerly Resolution 8)
The Knitted Outerwear Industry specifically approves of the adjustment of disputes in a fair and reasonable manner in a spirit of moderation and good will, and the parties concerned should make every effort to arrive at an agreement. Should they be unable to do so, the industry believes commercial arbitration under existing codes should be employed as preferable to litigation.

Rule E. (formerly Resolution 12)
The rules adopted by this conference, when approved by the Federal Trade Commission, and as many of them as are so approved, shall be effective on and after May 1, 1930.

Rule F. (formerly Resolution 13)
A (trade) Committee on Trade Practices is hereby created and empowered to investigate whether these rules are being observed, to make complaints concerning alleged violations, to co-operate with the Federal Trade Commission and generally to perform such other acts as may be reasonably necessary and proper to put these rules into effect and accomplish the objects and purposes of this conference.

Wool Top Futures Market Suggested



New York Cotton Exchange

TENTATIVE plans for the establishment of a wool futures market have been submitted to the wool trade by the special committee on wool of the New York Cotton Exchange. The committee, of which John J. Pflieger is chairman, states its belief that the setting up of such an exchange would bring to the wool trade many benefits which it does not now enjoy, including the attraction of new elements from all quarters, the infusion of fresh activity in a market long stagnant, broader dealings, smaller capital tie-up and reduction of risks.

The report outlines a plan for trading in wool tops for future delivery on the New York Cotton Exchange. The wool trade, from the very outset of the proposal some five years ago, felt that owing to the extreme diversity in wools and the great differences in shrinkage, it would be impossible to establish any satisfactory market in futures for raw wool. This position is now concurred in by the exchange committee, which states in its report that standardization of wool in the grease is extremely difficult, if not impossible. The project of a futures market in raw wool has therefore been abandoned by this committee.

Antwerp Model for Plan

The exchange committee, however, believes that a futures market in wool tops can be established, and points out that such a market exists and is a success in Antwerp. This foreign top market was suspended during the war, but since then has been running regularly. The committee in its report adopts the general provisions of the Antwerp market, which are based upon a 64s top with the unit of contract 5,000 lb. with permitted variation from 4,800 lb. to 5,200 lb.

The worsted division of the wool trade in several branches displays only a languid interest in the proposal to set up a futures market in tops. The project has little if any meaning for the woolen branch of manufacturing, about half the industry, which does not use tops.

The wool trade, recognizing the impossibility of a futures market in wool, is nevertheless willing to be shown as to the practicability of a futures market for tops. It is pointed out, however, that the cotton futures market is based upon an annual crop of from 7 to 8 billion pounds of cotton, while the amount of wool top of all grades in the United States on any given day is approximately 15 million pounds, of which amount 6 million pounds might be fine top, grading around 64s. That a market so based could easily become subject to a "corner" is a further objection. The Antwerp market which furnishes a basis for the committee's proposal has for its unit of contract a dry combed Australian 64s and the amount of business weekly is approximately 700,000 lb.

Wool Trade Opinion

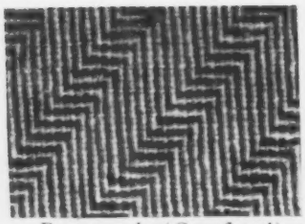
A leading topmaker discussing the situation says "We hardly know what to say other than that we are neutral and are awaiting further information."

A leading wool dealer observes that such a market as proposed is "a perfectly futile proposition."

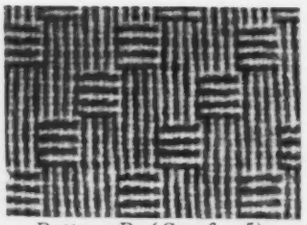
It is generally believed in the wool district that the present is a most inopportune time for the consideration of any such proposition, with the wool trade all balled up over Farm Board marketing operations and the cooperatives.

The proposal referred to another topmaker brought out the remark "A top futures market looks feasible enough on paper, but it will be exceedingly difficult of actual accomplishment."

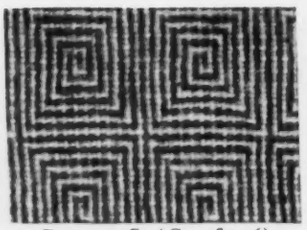
The committee invites suggestions and criticism, and should response be sufficient, in the opinion of the committee, to indicate a desire by the wool trade for such an innovation, it is planned that a general meeting be called in Boston at an early date for the purpose of discussion and organization of such a contract on the New York Cotton Exchange under the auspices of the wool trade.



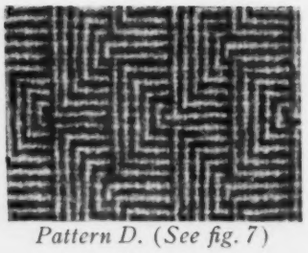
Pattern A. (See fig. 4)



Pattern B. (See fig. 5)



Pattern C. (See fig. 6)



Pattern D. (See fig. 7)

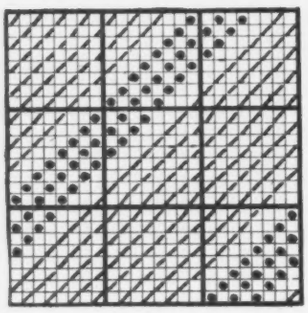


Fig. 4. Simple diagonal

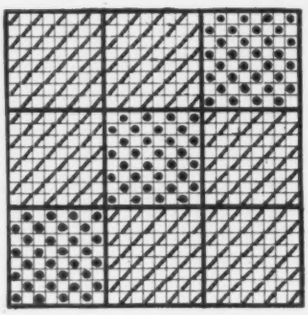


Fig. 5. Step diagonal

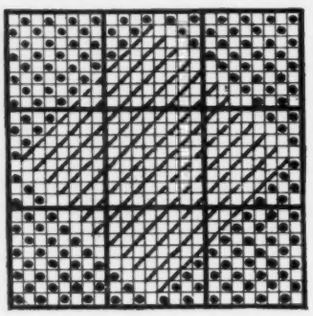


Fig. 6. Diamond design

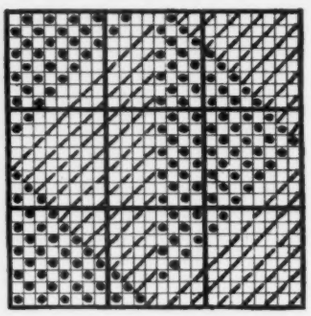


Fig. 7. Split diamond

Geometric Color Patterns

Obtained in the Plain Weave

By Alexander Yewdall

THE plain or tabby weave makes a very useful foundation for designing patterns composed of horizontal and vertical lines arranged in simple geometric forms, as illustrated by Patterns *A* to *H*. Such patterns are particularly suitable for ladies' coating and costume cloths in both woolen and worsted yarns, owing to the well-defined and distinctive color effects they yield.

The fundamental system of designing employed is merely a development of the old "hair-line" pattern, obtained, as is well known, by the application of a one-and-one order of coloring to the plain weave. By arranging the threads, for example, one black and one white in both the warp and filling (with the weave marks on the point paper indicating warp lifts), alternate unbroken horizontal lines of the two shades are formed; and by transposing the colors in the filling to one white and one black, the lines are changed to a vertical position. Alternately, vertical lines may be formed by transposing the shades in the warp instead of the filling.

By combining the basic and the transposed orders in groups as a "compound order," stripe and check patterns composed of horizontal and vertical lines may be formed. Fig. 1 is a color sketch of a small check worked out on point paper in the plain weave with the following color arrangement in both warp and filling:

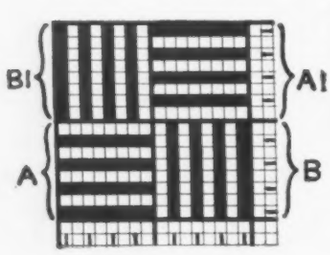


Fig. 1. Color sketch of small check

1 thread black, 1 thread white } 4 times
1 thread white, 1 thread black } 4 times

16 threads in one repeat.

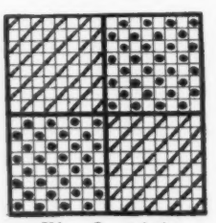
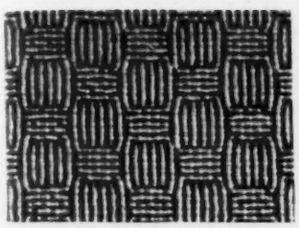


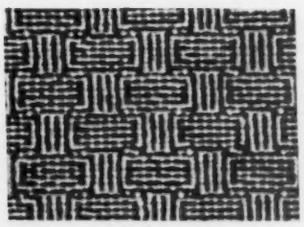
Fig. 2. Plain weave reversed

The lines can be varied in position also, by changing the "foot" of the weave itself instead of transposing the colors; and if it were desired to retain the one-and-one order of coloring unbroken throughout, in order to simplify the operation of warping, and save the time required to make a shuttle-box chain, a design could be made on sixteen threads and picks with the plain weave reversed in the sections required to produce the vertical lines. Fig. 2 is the design, the plain weave being marked in dots and its reverse in strokes; and Fig. 3 is the color sketch, which in general effect is the same as Fig. 1.

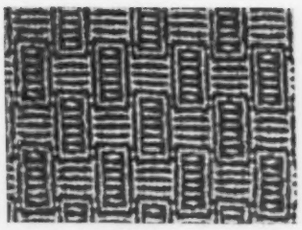
A comparison of Fig. 1 with Fig. 3, however, shows that there is a slight difference between them. In Fig. 1, it will be seen that the colors have changed position in their opposite corners; in section *A* the first pick is black, while in section *A1* it is white; a similar difference also being seen between the threads of sections *B* and *B1*. In Fig. 3, there is no change whatever in the positions of the colors in the opposite corners, *A* and *A1*, and *B* and *B1* being, respectively, the same. In patterns in which the component sections of the check are outlined with fancy or bright-colored threads, the latter arrangement (Fig. 3) is advantageous, because the fancy colors appear in the same position in each section, and so retain their



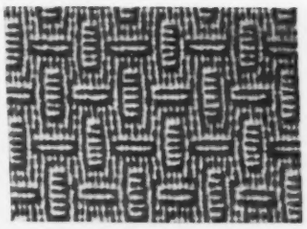
Pattern E. (See fig. 8)



Pattern F. (See fig. 8)



Pattern G. (See fig. 9)



Pattern H. (See fig. 10)

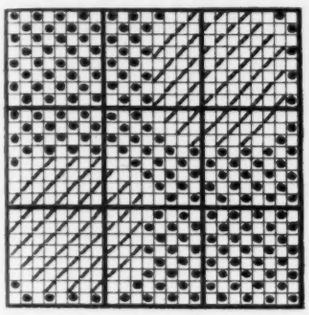


Fig. 8. Hexagon as motif

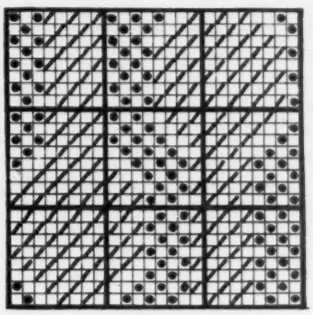


Fig. 9. Hexagon built on narrow band

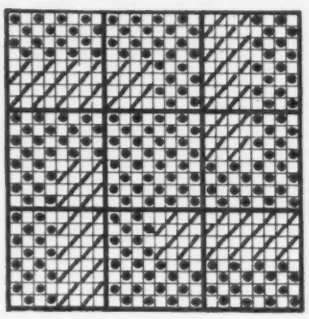


Fig. 10. Short bands of plain weave

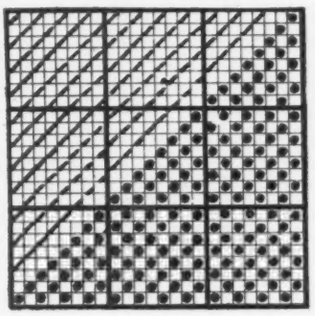


Fig. 11. Two triangles

color value in each, an effect which is most desirable.

It will be noticed in the design Fig. 2 that where the plain weave and the reverse meet, a two-float is formed. This might be considered a detriment in a plain-colored fabric, but in a fancy-colored pattern it is not observable, because the weave structure is subordinated by the color pattern. It will be observed that the design can be drafted onto a two-harness if required.

Small Figured Effects

When small figured effects are required, with the horizontal and vertical lines arranged on some simple geometric base, the plain weave and its reverse must be combined in the formation of weave designs, upon which the color patterns are developed by the application of the standard one-and-one order of warping and filling unbroken throughout.

The following designs, Figs. 4 to 13, are all made on simple figure bases occupying 24 threads and picks, by combining the two plain-weave elements. In making such designs, the basic form must first be marked with pencil on the point paper, and the two weave elements then inserted in their respective sections, care being taken that they occupy their correct relative positions with regard to the color effect required in these sections.

Fig. 4 is the design for Pattern *A*, which consists of a simple diagonal effect formed by vertical and horizontal lines in two colors. It will be noticed that the reverse plain weave, which forms the vertical lines, occupies twice as much space as the ordinary plain weave which forms the horizontal lines. This design requires a 24-harness, as, owing to the continuous diagonal movement, it cannot very well be drafted down.

Fig. 5, the design for Pattern *B*, is a "step" diagonal, the steps in the color pattern being formed by the horizontal lines. Each step covers eight threads; and as there are three of them, the design can be drafted on to a six-harness.

Fig. 6 is a diamond design, which produces a very curious effect in the cloth, as seen in Pattern *C*, the two series of lines joining each other at right angles and forming a "maze-like" pattern.

In Fig. 7, which produces Pattern *D*, the diamond form is used again, but the diamonds are split vertically down their centers, thus forming two triangles with their long sides touching—one being filled in with the plain weave, and the other with the reverse plain. Figs. 6 and 7 both require a 24-harness.

Hexagon as Motif

A hexagon is used as the motif in Fig. 8, illustrated by Patterns *E* and *F*. In the former pattern, obtained by arranging the warp and filling one black and one white, the two series of lines give a neat ribbon-like interlaced effect, the outer white lines of the vertical ribbon being apparently deflected from a straight line, and rounded as they appear to pass underneath the horizontal ribbon. In the latter, the rounded effect is lost, and the pattern becomes more formal and severe by changing the filling order to one white and one black.

In Fig. 9, the hexagon motif is used again, but is built on to a narrow band of the same weave—the whole motif resting on a ground of reverse plain. The effect of coloring one black and one white in both warp and filling is seen in Pattern *G*, which shows the interlaced ribbon form again, but with the ribbons in two different widths —the narrow one running longitudinally and the wide one transversely of the pattern.

Fig. 10 is composed of short bands of plain weave arranged in vertical and horizontal positions alternately, and resting on a reverse plain ground. Pattern *H* shows effect of warping and filling one black and one white.

A square forms the base of Fig. 11, but it is divided by a diagonal line which splits it up into two triangles, one of which is filled with plain, and the other with reverse plain weave. With a one-and-one scheme of coloring, a check effect is formed—one of the triangles being developed in upright, and the other in transverse lines.

In Fig. 12, a herringbone or chevron pattern is formed, with the plain weave reversed in opposed sections; and in Fig. 13, three triangles of diminishing

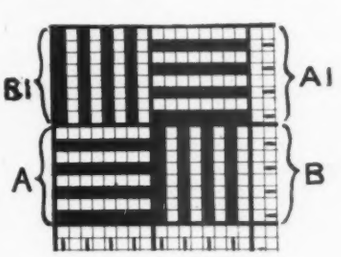


Fig. 3. Color sketch of fig. 2

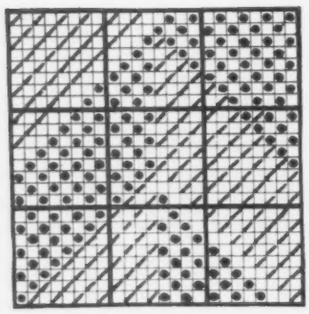


Fig. 12. Herringbone

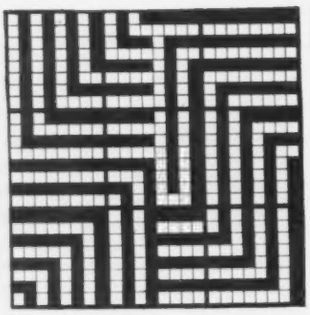


Fig. 14. Color sketch for fig. 12

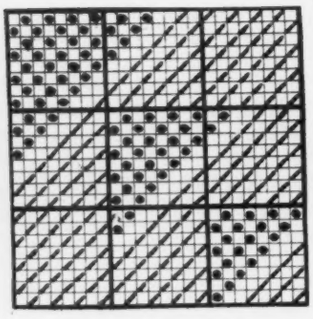


Fig. 13. Triangles diminishing in size

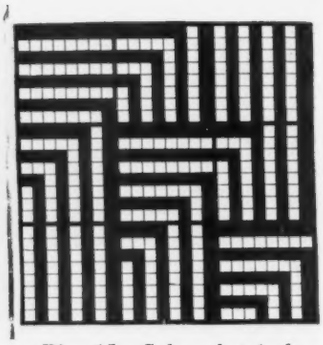


Fig. 15. Color sketch for fig. 13

size and developed in plain weave rest on a ground of reverse plain. Figs. 14 and 15 show their respective color sketches resulting from arranging the warp and filling one white and one black.

Patterns *A* to *D* were produced in 20 skeins Saxony woolen yarns (equal approximately to a three-run yarn), and were woven with 28 threads and picks per inch in a 70-in. reed. The weight of the finished cloth was 11 oz. per yard. These particulars give a soft-handling fabric.

Patterns *E* to *H* were produced in 2/20s Botany worsted yarns, woven with 42 threads and picks per inch in a 63-in. reed. The finished weight was 16 oz. This "make" gives a much firmer cloth than that produced with the woolen yarns, but is rather harsh in handle.

Designs made and colored according to the methods just described offer considerable scope to the designer in the production of fancy woolens and worsteds of various classes and weights, and the following are a few suggestions for the further elaboration of such patterns:

1. Broad styles, suitable for ladies' coatings, may be obtained by the use of thick woolen yarns.

2. Bold stripe and check effects may be formed by a system of "group" coloring. The standard one-and-one order is used, but, at intervals, other shades are introduced in groups. The following arrangement is suitable for any of the above designs:

Warp:

1 thread mid brown 1 thread white	36 times
1 thread mid green 1 thread white	36 times
144 threads in one repeat of the pattern	

Filling:

1 pick mid brown
1 pick white

This produces broad stripes, each occupying three repeats of the design, with the brown and green shades predominating alternately. The green warp, however, will be modified in tone by the brown filling.

3. The use of fancy twist threads, composed of dark and light shades of equal counts, to take the place of the mid or dark colors in the standard one-and-one arrangement produces pleasing effects by softening the severe outlines of the pattern.

4. Beautiful effects may be obtained by twisting bright-colored rayon yarns with the dark and light woolen or worsted yarns which form the foundation fabric. Such compound yarns, subduing the severe "line" effect of the pattern, give delicate brilliance to the style.

AMERICAN COMMERCIAL RAYON YARNS, GIVING DENIER AND FILAMENT NUMBER

DENIERS	15	25	30	35	40	45	50	52	55	65	75	80	100	120	125	140	150	160	170	175	180	200	240	250	300	360	450	600	900	1200	QUALITIES
I. Viscose Process:																															
The Viscose Company											18		18		18		24		27			30		36	44		54	72	100	150	1st and 2nd
											30		40		36		36		60			60									
																	60														
																	75														
Du Pont Rayon Co.											18						24	40		24		30			40		72	96	144		Stand. 1st and 2nd
							20			26		30	40		50		60	90		60		80									Super-extra 1st-2nd
																	24	40							60						Lolustra Stand. 1st
												30	40		50		60	90				80									Lolustra Super-X 1st
Industrial Rayon Corp.											18		40				30								60						1st and 2nd
																	40														
																	60														
The Belamose Corp.																	30								42		66	66	126		1st and 2nd
																	42														
Acme Rayon Corp.																	44								44						1st and 2nd
Delaware Rayon Co.													40				24		24			30			44		60				1st and 2nd
Skenandoa Rayon Corp.																	30														1st and 2nd
Am. Glanzstoff Corp.											32		40				32		32												1st and 2nd
																	42														
																	60														
New Bedford Rayon Co.																	24														1st and 2nd
Tubize Chatillon Corp.													40				40														1st
II. Nitro-Cell. Process:																															
Tubize Chatillon Corp.					8			12				18		20		25	30	30	30		30										1st and 2nd
														26																	
III. Acetate Process:																															
Celanese Corp. of America							10			13	20		26				40		40			40			80						One only
											40						80								104						
Du Pont Rayon Co.							13				24		32				24														Acele
Tubize Chatillon Corp.							13			13	20		26				40														1st
IV. Cupra-Amm. Process:																															
American Bemberg Corp.	24	24	24		30			30		45	60	75	90				112				135		180								"A" and "M"
Napon Rayon Corp.													60		60																A-B-C

Revised March, 1930, by Cox, Fuller & Manersberger, New York

Precision Instruments

for Setting Cotton Yarn Machinery

By H. D. Martin

WHEN Mr. Martin submitted this article, he told us the following story: "A new nurse was directed to use a thermometer when giving the baby a bath. 'I don't need one,' she replied sweetly. 'If the baby turns blue, I know the water is too cold; if he turns red, it is too hot!'" Mr. Martin believes that many who have the job of nursing textile machinery entertain analogous ideas.—EDITOR.

PREVENTING irregularities before they occur is much better than applying remedies afterward. If instruments of greater precision were in use for setting cotton-yarn machinery, for example, we could meet specifications more precisely.

It is not generally well known that thread guides should be reset for each yarn number spun and that this is one of the finest points of setting required in cotton spinning. A thread guide set properly for, say, 20s yarn is not just right for 40s. It is not the edge of the thread guide which should be set over the dead center of the spindle; it is the center of the yarn. This adjustment should be figured into hundredths of an inch.

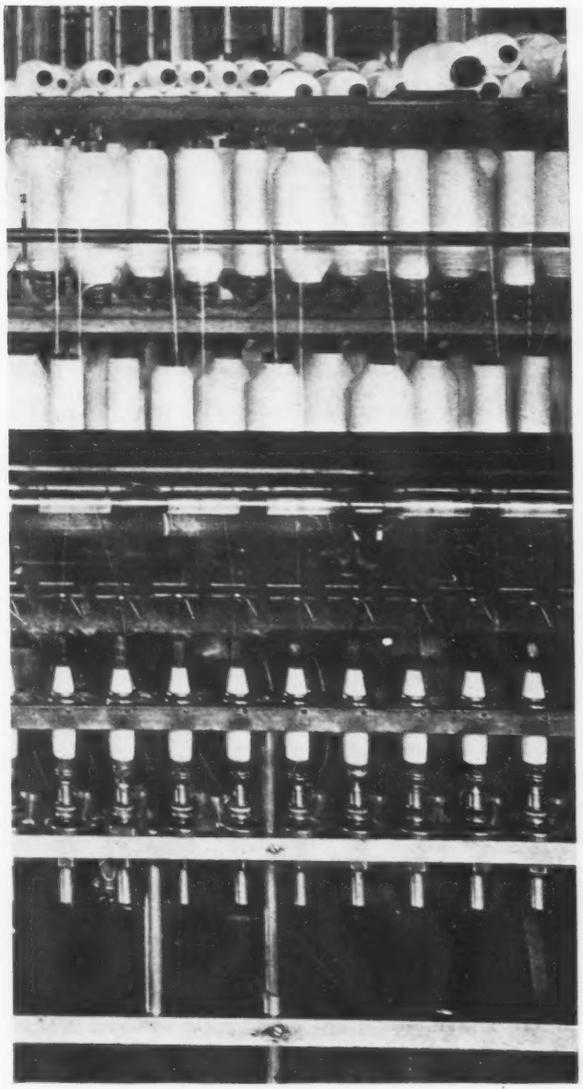
Thread guides, rings, spindles, and heights of thread boards above spindles are all set rapidly and roughly by means of wooden tops or gages with blunt pointers. Since dependence is placed on the naked eye, whether that eye is good or bad, some of these settings are out of true as much as $\frac{1}{16}$ in. In such cases it is difficult to see how one may expect a slender thread like 60s, having a normal diameter of 1/247 in., to revolve successfully one mile per minute, carrying the weight of the traveler on a non-lubricated steel track. When both the thread guide and the spindle, in its relation to the ring, are out of true, the trouble is accentuated.

For 60s yarn the inner surface of the thread guide toward the frame should be set 1/494 in. from the dead center of the spindle. If the frame is changed over to spin 80s, this distance should be 1/572 in. In other words, the setting away from center should be one-half the diameter of the yarn, in order that the yarn may revolve evenly on its own center. An accurate setting at this point should permit increased speed.

Other factors affecting the speed of spinning machinery include the uniformity in size of bands and whorls. If a whorl, for example, $\frac{3}{4}$ in. in diameter, is worn down only .01 in., the spindle will revolve faster than one having a perfect whorl. A spindle band that is too slack may reduce the twist as much as 10%.

All covered top rolls should be tested for diameter and straightness. Drafting rolls should be adjusted accurately.

Greater precision is also needed in making adjustments in the card room and on spoolers. In the case of the latter machines it is not uncommon to have a tension variation of over 100% in the different ends unwinding from the bobbins. This makes considerable variation in yarn size, elasticity, and strength. It also causes unequal tension in warping and results in imperfect weaving. I believe that each end ought to be tested for tension.



Thread guides, spindles, and rings should be in exact alignment

We need finer weighing scales. Grain scales graduated to one-tenth of a grain are not fine enough for close work on yarn as fine as 80s. Considering that in the higher numbers a difference of one-tenth of a grain makes a difference of one number, it seems to me that graduations to .01 grain are not too fine.

I am also convinced that we need more accurate yarn and roving reels, as I find it impossible to obtain consistent results on any of the existing machines. These devices should be made larger and wider, should be motor driven, and should be equipped with stop motions. Such improvements would afford smoother action, deliver yarn more accurately, and permit more sizings to be reeled at the same time. I find that the present roving reels compress the strand, stretch it, and deliver inaccurate lengths due to the reeling being done unsteadily by hand. Guiding the end by hand, as is common practice, makes it zig-zag from side to side on the reel.

Textile Machinery Lubrication

PROPER LUBRICATION of textile machinery results in decreased power consumption, increased service from equipment, and improved products. The accompanying article, outlining results of studies in textile-machinery lubrication, is reprinted from the February issue of *Lubrication*, a technical publication issued by The Texas Co.

IN the cotton mill the first machine wherein any lubrication is involved is the bale breaker. The essential problem in lubrication of opening machinery as a general rule, is to maintain frictional temperature as low as possible; for, by reason of the usual amount of dust contained by the atmosphere, any spark might result in a blaze which would travel through the entire room.

It is for this reason that such equipment is frequently supplied with anti-friction bearings. By virtue of the care observed in the design and construction of such bearings, it is practicable to lubricate them with a minimum amount of lubricant. If the bearing housings are sufficiently tight, this lubricant should be a highly refined, straight mineral oil, of about 100 seconds Saybolt viscosity at 100° F.

If, on the other hand, there is any possibility of oil leakage, it will be well to consider the use of a grease. The possibility of contamination of the cotton at this early stage of treatment is rather remote, although it is just as well to eliminate any chance of oil leakage wherever practicable.

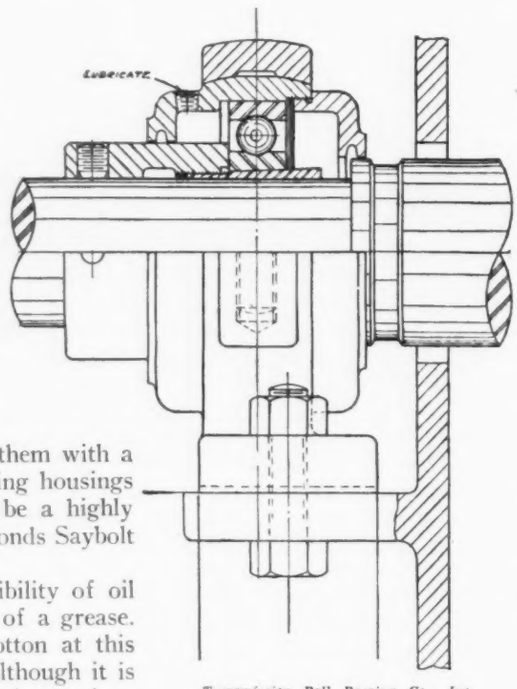
The lubrication of other working elements on such machinery can be effected by either oil or grease, according to the general construction.

Gears, however, should be given special attention, particularly if they are not adequately covered to protect the lubricant. In general, if a comparatively heavy-bodied lubricant is used, a minimum amount will be required for the maintenance of a sufficient film on the gear teeth to prevent not only friction and wear but also the possibility of any spark, should the teeth happen to mesh or strike each other unevenly.

Carding Cotton and Wool

In the operation of a cotton, woolen, or worsted mill the carding machine can be regarded as presenting the first real lubricating problem, by reason of the construction and motion of the comb box. The action of the doffer comb is vibratory, reciprocating motion being brought about by a suitable cam or eccentric mechanism. This latter runs in a bath of lubricant.

Due to the fact that the comb is usually set with but a few thousandths of an inch clearance between itself and the doffer cylinder, it is absolutely essential that the comb box be kept at an even temperature, to insure maintenance of this distance and even running of the sliver.



Transmission Ball Bearing Co., Inc.
Details of beater shaft of a Kitson picker, showing points of lubrication above bearing and relative volume of the space available for lubricant, with respect to the size of the bearing

The successful lubrication of this box has always been a potential problem. Perhaps this has been chiefly due to the fact that textile engineers have been more or less in the dark as to the proper lubricant to use. Many have regarded grease or a fairly viscous oil as the proper lubricant. On the other hand, some greases are relatively inert. In addition, heavy greases and high viscosity oils will render it difficult to secure the low frictional temperatures which are so necessary.

The probable reason for this inherent preference for heavier or more viscous lubricants has been the necessity for preventing splashing or throwing from the comb box where it is subjected to the continued churning action of the cam or eccentric mechanism.

Experiments with such equipment, however, have developed that the use of a lower viscosity lubricant will promote lower frictional temperatures and insure the maintenance of a more uniform clearance between the comb and doffer cylinder. Such a lubricant should be of the nature of a light to medium straight mineral oil.

The comb box must be kept in as perfect alignment as possible, for it must be remembered that a few thousandths of an inch out would involve a severe strain.

The size of the band must also be studied. If this is too small in diameter, there will be a tendency to install it too tightly, with the result that both power consumption and temperature may be increased. By increasing the diameter, however, and deepening the V's of the sheave wheels, this can be overcome.

Throwing and splashing of lubricants from the comb box is important in carding, due to the fact that the leather backing of the card clothing is susceptible to deterioration when spotted with mineral oil.

Cylinder bearings of a carding machine when they are of the plain-bearing type can be effectively lubricated by a straight mineral oil of from 300 to 500 seconds Saybolt viscosity at 100° F. The utmost care must be taken, however, to prevent oil leakage from these bearings to the card clothing on the main cylinder.

For this reason, ball bearings have been experimented with and successfully applied to such card cylinder bearings. When installed in oil-tight housings, they effectively prevent leakage of lubricants to the card clothing. Furthermore, they materially reduce the starting torque, making it practicable to start a cotton or woolen card with a minimum of power, and practically no difficulty after shut-down.

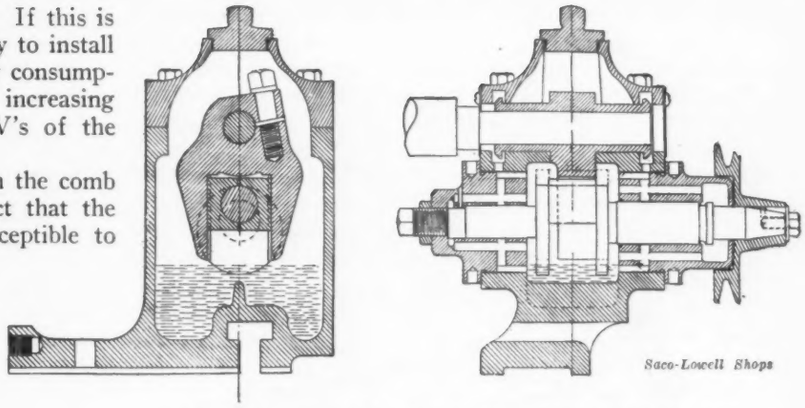
When ball bearings are set in oil-tight housings a straight mineral lubricant of approximately 100 seconds Saybolt at 100° F. will give effectual service. In event of leakage being possible, however, it will be advisable to resort to a fairly heavy grade of grease.

Gilling and Noble Combing

Apart from the matter of stock conditioning or fiber lubrication, the use of oils on gill boxes involves but one possible difficulty; i.e., in regard to the drums or cans on certain types of the latter machines.

Temperature conditions are usually relatively high and it is frequently difficult to maintain the requisite film of lubricant within the clearance spaces. For this purpose a relatively inert lubricant, or grease of high melting point will be suitable, although it will be practicable in some cases to use a steam cylinder oil.

The comber, due to the proximity of its numerous intricate roll bearings, cams, etc., to the wool tops, requires careful attention from a lubrication point of view. In selecting lubricants for such machines, the matter of body or viscosity will frequently be contingent upon the operating temperatures, for steam heat by means of an adjacent steam box is regarded as being of considerable advantage in bringing about efficient combing. As a result, especially on revolving table rollers and drawing off rollers, it will be necessary to use a lubricant of sufficient body to adequately resist the thinning-out effects of the heat involved. A straight mineral oil of approximately 500 seconds Saybolt at 100° F. will usually serve the purpose satisfactorily. On the other hand, where grease lubrication is preferred, a comparatively light grease should meet the requirements of any ordinary mill.



Sectional view of a comb box, illustrating design and location of respective moving parts; oil level in the box is shown by dotted lines.

Cam Motions

Cam motions of a combing machine should be lubricated with a comparatively heavy grease which will have sufficient body to resist the pounding of the dauber and any tendency to drip or throw off. Dabbing brushes in turn can frequently be served by a spindle oil of approximately 100 seconds Saybolt viscosity at 100° F., although in many mills it is customary to use a light grease or somewhat heavier oil.

For the lubrication of bearings, however, a straight mineral oil of medium to heavy viscosity can be used, especially if these bearings are of the plain or sleeve type. With anti-friction bearings a somewhat lighter oil, as already mentioned in connection with opening machinery, should be used.

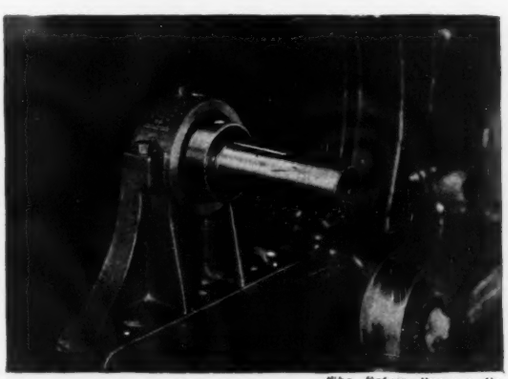
Drawing, Roving and Spinning Frames

The essential problems in the lubrication of drawing, roving or spinning frames, as well as of twisters, involve the spindles and variable-speed rolls. Speeds are high, continuous operation is mandatory, clearances are low, and a minimum of friction is necessary to insure maximum production. Furthermore, the yarn must be protected against oil spots as much as possible.

For example, take the front rolls of drawing frames through which slivers pass in the drawing and straightening process. The important item here is to lubricate with the maximum amount of protection to the leather coverings of the rolls. In other words, the lubricant must not creep from the bearings, otherwise the rolls might be ruined and the yarn stained.

Viscous Lubricant Desirable

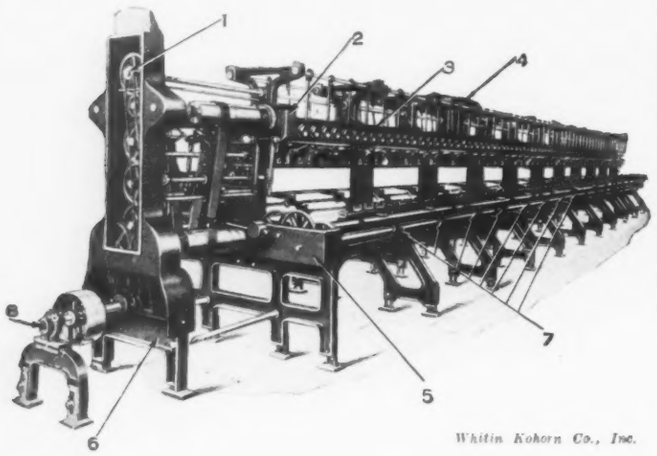
The lubricant must therefore be relatively viscous in order to insure its retention in the bearings; at the same time, however, the presence of a small amount of soap will facilitate removal of oil spots in scouring and bleach-



Main cylinder of a card, equipped with ball bearing pillow blocks, showing degree of cleanliness which is attainable by the use of a properly housed bearing

ing. For this reason a light-bodied grease is preferred by many operators. This same lubricant is applicable to gearing and cam mechanisms, etc., although a somewhat heavier product would perhaps give greater economy in use.

While roll bearings, gears, etc., are important features in regard to lubrication, the spindles are usually regarded as involving the outstanding problem, due to the prevailing high speeds. As a result, the selection of a spindle



Whitin Kohorn Co., Inc.

Rayon spool-spinning machine, designed for handling viscose. Machine is equipped with oil tight casings, in which lubricating oils are carried to the moving parts by pressure system inside the housings and also by gravity where the oils run to the bearings through tubes from a chamber above. (1) indicates main drive, (2) the spindle drive, (3) the spindle gears, (4) the traverse, (5) the pump gears, (6) the oil pump, (7) plain bearings and (8) a ring oiled bearing

oil is a most important item, for power and frictional losses must be reduced in every way possible, otherwise a considerable "drag" or excess of tension may be imposed on the yarn.

Spindle Lubrication

Some interesting data have recently been developed which indicate the possibility of marked power saving by special treatment of spindle oils and at the same time subjecting them to special refinement.

In the spinning department approximately 60% of the total electric power used by the average cotton mill is consumed.

Where it is practicable to reduce this consumption it will, of course, be decidedly advantageous. With this object in view, exhaustive tests have been carried out, using a ring-type, warp spinning frame, equipped with $1\frac{7}{8}$-in. rings and $8\frac{1}{4}$-in. bobbins. The spindles were driven at a speed of 9,200 r.p.m.

In order to develop as accurately as possible the actual effect which refinement and physical characteristics might have upon power consumption, four different grades of oil were used.

Results of Experiments

Oil No. 1 was a highly refined straight-mineral filtered spindle oil; this product showed an average power consumption of 20.6 watts per spindle per hour. Oil No. 2 was especially prepared for this test; it gave a power consumption of 19.3 watts per spindle per hour. Oil No. 3 showed lower power consumption than the first two oils, but proved unsuitable for high-speed spindle operation.

The best results were obtained from a carefully manufactured oil, having certain inherent characteristics which adapt it to high-speed operation. Very much lower power consumption was indicated than with any of the other three oils. In fact, at the end of the two weeks' test the average recorded power consumption was 17.8 watts per spindle per hour of operation. Furthermore, it was found that no staining had occurred during this time, and the operating temperature of the base was low.

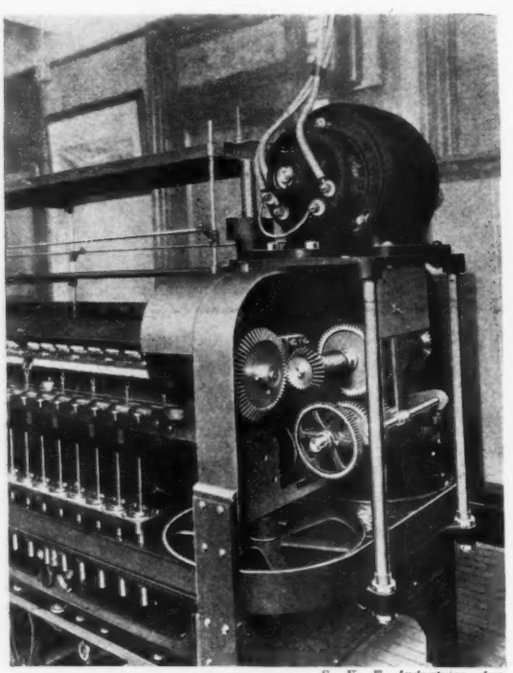
As a result of this test, if we assume that a mill of 100,000 spindles was to use this oil under a weekly program of relubrication, the power saving involved would be approximately $19,000, whereas the increased cost of oil, plus labor, would not be very much over $1,000 per year.

Another interesting fact which developed during the test was that power consumption varies directly with the degree of cleanliness of the spindle base. This may range from 0.3 to 0.5 watts per spindle per hour, depending upon the base. It is therefore evident that it is advisable to subject spindle bases to regular cleaning in the interest of reduced power consumption.

Suitability of Spindle Oils

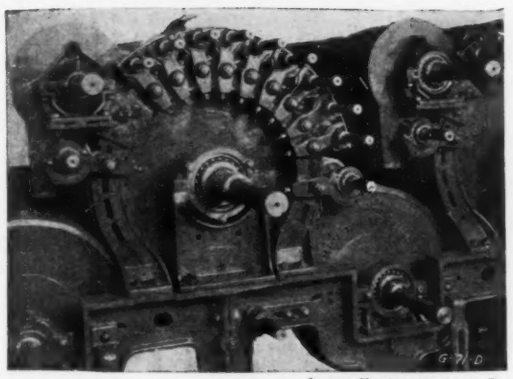
The suitability of a spindle oil can generally be noted by the temperature difference which exists between the spindles and the surrounding atmosphere. Under ideal conditions there should be no such difference. It is impossible, however, to eliminate friction absolutely; therefor spindles will usually be found to operate somewhat warmer than room temperatures. A difference of approximately 10° F. may be regarded as a fair average, using an average spindle oil.

Of course, the higher the viscosity of the oil, the greater will be the internal friction, with the result that more power will be required to drive the spindles. For this reason every care should be taken to observe the above temperatures and reduce the viscosity of the oil as far as possible. On the other hand, this should not be carried to an extreme, otherwise there would be danger of metal-to-metal contact occurring. In this event, metal-



S. K. F. Industries, Inc.

Drive end of a spinning frame, showing the respective gears involved, as well as a whorl drive



James Hunter Machine Co.

Section of a two-cylinder Garnett machine, showing the manner in which ball bearings can be employed

lic friction would probably build up and excessive wear might occur. This would also be indicated by abnormal spindle temperatures, excessive power consumption, and perhaps ultimate seizing of the spindles. Long before this extreme, however, frequent breakage of the yarn would probably indicate that something was wrong.

Cleanliness Is Important

It is essential, of course, to prevent spindle oil from coming in contact with the yarn as far as possible. Frequently, however, constructional details, carelessness, or adverse operating conditions render this ideal difficult to attain. It is therefore advisable to use as light colored mineral oil as is available.

Another important factor is cleanliness. We must remember that spindle oils should be very highly refined products, and that every care should be taken in refinement, handling, and storage to keep them free from contamination. This care should be extended to the mill, and such oils should be stored in clean containers free from dust and dirt, and handled only in clean oil cans.

It will also be advisable to clean out spindle oil reservoirs at frequent intervals and refill with fresh oil. Regardless of the means taken to prevent it, a certain amount of foreign matter will gain entry, to ultimately cause wear, increased friction, discoloration of the oil, and perhaps serious staining of the yarn.

Other wearing parts of drawing, roving, and spinning frames, and twisters, such as gears, miscellaneous bearings, chain drives, etc., can be satisfactorily lubricated with either a 200- or 300-viscosity machine oil or medium-bodied grease, according to requirements or the desire to concentrate on one lubricant. For enclosed chains and gears, oil will usually be preferable, and probably the more economical due to the possibility of bath lubrication.

S. K. F. Industries, Inc.

Cut-away view of a roller bearing spindle, showing details of bearing construction and relative location of the moving parts of the spindle

Mule Spinning

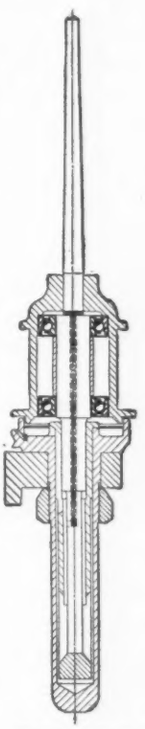
In mule spinning the lubrication requirements will, in general, differ but little from those of the ring or cap-type frames. Spindle problems are essentially the same, with the exception that the bases may be open. For this reason, due to the possibility of the occurrence of oil throwing, it will frequently be advisable to use a somewhat heavier spindle lubricant, it being, of course, necessary for the oil to remain in the base not only to insure positive lubrication, but also to prevent possible staining of the yarn.

For the rolls of the mule a light grease as recommended for ring or cap frame rolls would be suitable. Operating conditions and lubricating requirements are practically the same. Elsewhere on the mule a 200- or 300-viscosity oil or a medium-bodied grease would serve the purpose, either being used judiciously, according to the mode of lubrication and the function or construction of the bearings, gears, or chains involved.

Silk-Throwing Machinery

In the silk-throwing plant, lubrication of the various winding, doubling, and spinning machines involves a number of problems, and the use of lubricants at any time that are improperly refined or otherwise unsuited for the service may result in much loss through damage to the silk.

The rapidly rotating spindles of the spinning and doubling machines require the most attention, due to their natural tendency to throw oil; hence, it is most important that they be looked after by an experienced machinist who understands the principles of lubrication. Spindle-oil reservoirs should never be more than half full of oil, otherwise the latter will work itself upward to drip or be thrown onto the silk threads of adjacent spindles. In modern practice the self-oiling spindle is preferred by most throwsters, due to its dependability.



Norma-Hoffmann Bearings Corp.

Ball bearings applied to a high-speed twister spindle, showing wick oiling system of lubrication is involved in this design

Best practice is to oil spindles by removing them and carefully filling the reservoirs with oil to the desired level. No oil should be allowed on the outside of the spindle mechanism or on the driving belt. This must be guarded against, especially in replacing the spindles, which should be done most carefully to avoid splashing or possible forcing of the oil onto the whorl or the belt. By many authorities it is considered good practice to renew spindle lubrication in sequence, and not oil all spindles at about the same time.

For spindle lubrication, a comparatively light oil, which has been highly refined to render it as nearly stainless as possible, is advisable. Other working bearings of the spinning frame can be effectively lubricated by means of a high grade of machine oil of about 300 seconds Saybolt viscosity at 100° F.

The throwster should never make the mistake of regarding frictional spindle drives as requiring lubrication. Trouble will be bound to occur if he does, not only from slippage but also from thrown oil. These should always run perfectly dry. Such gearing and silent-chain drives as are installed should be sparingly lubricated by means of a relatively heavy grade of liquid grease that will not drip. Where ball bearings are installed on the heavy elements of spindle-belt drives, etc., the lubricant should be a light-bodied grease free from acid and alkali.

(To be continued)

Textile Color Card Association Jubilee

THE growing importance of color in textiles during the last decade and a half was illustrated April 17, when the Textile Color Card Association of the United States celebrated its fifteenth anniversary with a crystal jubilee at the Hotel Astor, New York.

The program included the annual meeting of the association, at which addresses were made by Edward S. Johnson, president of the association, Mrs. Margaret Hayden Rorke, secretary and managing director, and others; the election of officers; and a "crystal anniversary" luncheon. The luncheon was attended by about 150 prominent figures in the textile industry, including stylists, retail executives, manufacturers and officials of trade associations. The entertainment was provided by the Japanese Theater Association which presented a group of Japanese players in "Kio-Ningyo," a lyric dance episode; this performance included native dances by Japanese girls. Following that number, Richard F. Bach, director of Industrial Relations of the Metropolitan Museum of Art spoke on "Color Goes Modern," and reviewed the increasing emphasis being placed on color in American industry.

Among the guests of honor at the luncheon were consuls and official representatives of foreign countries where members of the Textile Color Card Association are located, textile association executives and educators.

Mrs. Rorke's annual report was the feature of the business session. Mrs. Rorke said during the year the association gained 240 new members of which 50 are foreign, the countries being Austria, Australia, Italy, Sweden, England, France, New Zealand, Japan, South Africa, China, Germany, Denmark, Switzerland and Canada; over 30 industries are represented, including all kinds of textiles, shoes and leather, tanners, hosiery, millinery, flowers, laces and trimmings, knitgoods, retailers, dyers, chemicals, rubber, floor coverings, automobiles, paint and varnish and paper.

The association manufactured during the last year, 51,840 color cards, including the regular floss, ribbon and woolen editions in addition to the eighth edition standard, hosiery, and shoe and leather cards. The year also witnessed the completion and issuance of the U. S. Army Color Card comprising the official colors for the Arms and Services of the United States Army. The card portrays 18 colors approved and accepted by the Quartermaster General of the United States Army, as being in accord with the standards on file in that office.

All officers and directors of the association were reelected at the meeting. The officers are Edward S. Johnson, president; Charles Pinnell, first vice-president; Roy E. Tilles, second vice-president; Adolf Muller, treasurer; Mrs. Rorke, secretary and managing director.

Attitude of Worker Depends on Methods of Boss

(Continued from page 93)

actions. From the time a man is retained by the company he is given to understand that he has been selected because the management believes him to be the most competent and capable man who can be found for the work in question. During his employment he is given full credit for all improvement and "B" takes pains to evidence his pleasure that he is accomplishing the things which are expected of him.

"B's" whole attitude is calculated to build in his subordinates' confidence in their ability, responsibility, initiative, and pride in their success. This can be built up to a point where one of the strongest motives in their lives is to prove worthy of his high opinion of them and their own pride in their ability.

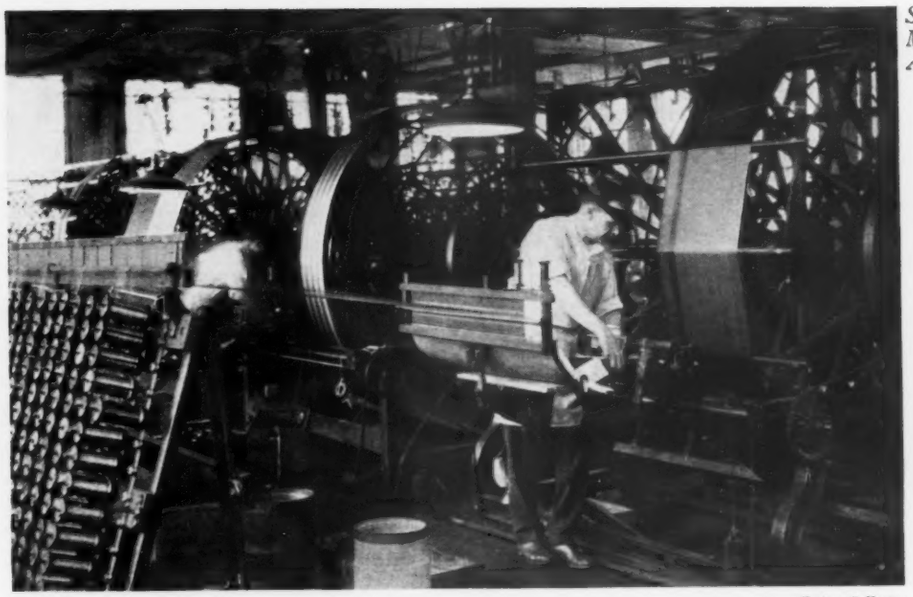
If "B" went no further in his policy, he would be in danger of building up a complacent self-conceit, which in many men would result in a strong inclination to rest on their laurels—satisfied with their accomplishment, and content to proceed no further. "B" is well aware of this inclination, and has no intention of creating any such undesirable conditions in his establishment. For this reason he never praises his executives for work accomplished, without, as proof of his faith in their ability, laying out for them a hard task of further improvement and accomplishment and impressing on them his confidence and expectation that they are more than competent to carry out the prescribed program. The depression which they may feel on being confronted with an extremely difficult task is soon superseded by the pleasure and exhilaration of his confidence in their ability, and they bend every effort to carry out the task and prove worthy of his high opinion.

"B" by no means confines his managerial effort to praise. He accepts no excuses for failure from sub-executives. He refuses to admit that his subordinates were incompetent, or that their ability was not sufficient to overcome all obstacles. If they had applied their full energies to the problem, it would have been solved; it was not solved, hence they laid down on the job.

"B's" criticism is not relished; his call-downs are severe—doubly severe because he knows that his employes could have succeeded if they had thrown their full energies into the work. It is to be particularly noted that "B" never criticises his executives for lack of ability or undermines their confidence in themselves. His stand is always that they could have and still can accomplish what he requires, and they redouble their efforts to prove worthy of that opinion.

As in the case of "A," the attitude which "B" assumes toward his sub-executives is in turn their attitude toward those under them, and the whole organization down to the last employe is encouraged and stimulated to the greatest effort. In this manner an efficient personnel with a high morale is developed.

The ultimate effect of good morale in a business organization is far-reaching in the good which it accomplishes. It adds immeasurably to the success of the business itself. It creates happiness and contentment for employes and enchances their value to their homes and to the community in which they live. Those employers who conscientiously feel a responsibility for promoting the welfare of those whose fortunes industry brings under their control, will find that the creating of this spirit among their employes effects this desirable end.



Silk-warping Machines in Action

Ewing Galloway

Practical Method for Silk-Warp Calculations

By R. H. Cannon

THE following method of planning or figuring a silk warp from the amount of stock on hand is very helpful when small lots and dyed lots of yarn are being used. The type of warping machine is the horizontal, with or without Swiss motion. In using this method, it is necessary to know the number of bobbins in the particular lot of yarn, the total number of threads in the warp, and the width of the material.

First Step. Divide the total warp threads by the number of bobbins, and the answer is the possible number of sections. Should there be a remainder, increase the number of sections by one; then divide the increased number of sections into the total warp threads. If this shows an uneven number of threads for each section, it will be necessary to decrease them by one, as the number of threads in each section must be divisible by two without a remainder. Otherwise the leases in each section must be reversed alternately. When the number of threads per section and the number of sections have been determined they must be multiplied together in order to find out if they equal the total warp threads. At this point the remainder is divided by two, because a single lease reed is used and two is the least number of threads that will make a perfect single lease. The answer is the number of sections of which each must have two more threads.

Second Step. The warp is usually made two or more inches wider than the material to allow for contraction in weaving. To find the width of one section, divide the number of sections into the increased width of the warp. If section pins are used, the remainder must be changed to the fractions marked on the warping reel—usually fourths, eighths, or sixteenths. Now multiply the width of a section by the number of sections to see if the warp is wide enough.

Third Step. The next thing to consider is the sleying of the section reed. Multiply the width of one section by the number of dents the section reed has to the inch. Then divide the number of dents for one section into the threads per section. This will give the number of threads per dent. The remainder is reduced approximately to get what percentage of dents should have more threads. The idea is to get the spread of the threads on the warping reel as even as possible.

Application of Method

Example:

Total warp threads, 7,832.
Width of material, 27 in.
Number of bobbins, 400.
Single lease reed.
Section reed, 60 dents per inch.

First Step.

7832 ÷ 400 = 19 possible number of sections.
19 + 1 = 20 sections.
7832 ÷ 20 = 391 threads, which cannot be divided by two evenly. Therefore 391 — 1 = 390 threads.
390 threads per section × 20 sections = 7,800, number of warp threads if 390 threads are used in each section.
7832 total warp threads — 7800 = 32 threads needed to give the exact number of warp threads.
32 ÷ 2 = 16 sections which must have two more threads, or 392 threads.
20 total number of sections — 16 = 4 sections which will have 390 threads.

Proof: 16 × 392 = 6272
4 × 390 = 1560
20 sec. 7832 warp threads

Second Step.

27 in., width of material.
27 + 2 = 29 in. increased width.
29 ÷ 20 sections = $1\frac{9}{20}$ in., width of one section.
Changing $\frac{9}{20}$ in. to sixteenths = $\frac{7}{16}$ in.
Therefore $1\frac{7}{16}$ in. would be the width of one section.
20 x $1\frac{7}{16}$ = $28\frac{3}{4}$ in., width of warp. This, however, is not two inches wider than the material. Therefore each section must be $\frac{1}{16}$ in. wider, or $1\frac{1}{2}$ in. wide. Then, 20 x $1\frac{1}{2}$ in. = 30 in. which will be used for the width of the warp.

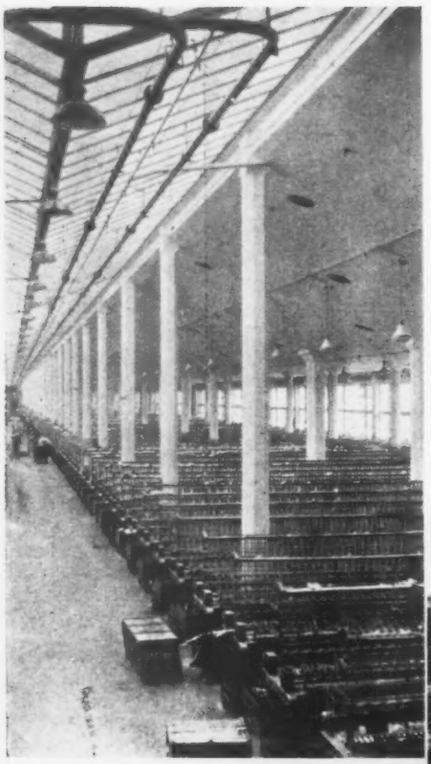
Third Step.

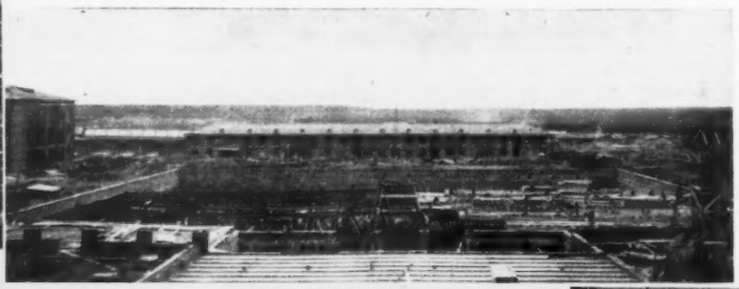
Section reed has 60 dents per inch.
Width of each section, $1\frac{1}{2}$ in.
Threads per section, 392.
60 dents per inch x $1\frac{1}{2}$ in. = 90 dents to a section.
392 ÷ 90 = $4\frac{4}{9}$ threads per dent (approximately).

One third of the 90 dents must have five threads. This is the way they will be sleyed: two dents of four threads, one dent of five, two dents of four, one dent of five, and so on. The spread of the warp threads must be uniform; therefore the dents having five threads cannot be sleyed together in any part of the section, but must be distributed among the dents having four threads in some regular way. By reducing the remainder, approximately the percentage of dents which should have more threads is obtained.

TEXTILE PHASES OF THE NEW INDUSTRIAL RUSSIA

TEXTILE INDUSTRY in the U. S. S. R. is receiving much attention and unlimited financial support. Mills lately built are now in operation and in spirited competition with each other. Graphic charts prominently displayed before the workers compare periods of shutdown for repairs, percentages of substandard goods, production, deliveries, accidents and absence of employes. Location of mills hinges on supply of textile workers competent to teach others rather than on supply of materials, water or power. The mills have no selling or merchandising departments as any kind of cloth sells easily.



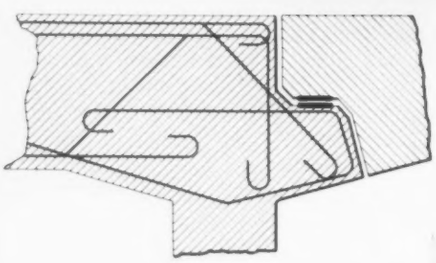


At left Russia's twenty million dollar cotton store house and mill, under construction

Above is interior of $2,000,000 mill at Ivanovo-Vosnesensk with depressed skylight. Room is 1,800 feet long. Round holes in ceiling are for ventilation. Much of the machinery was made in Leningrad. Structure has been built in units to permit movement with temperature changes. At right is typical mill and village with water impounding basin.

At right another view in large Russian cotton mill showing drive on roving frames. (Photo by International.)

At left sketch of split beam for expansion joint. Note placing of reinforcing steel and use of plates for bearing surface. The shear comes about 2 ft. from one column and 14 ft. from the next. The floor above is loaded with machinery.



Below is housing for workers built seven years ago.

At right is new type of four family apartment of brick and stucco.

At lower right corner is new type of brick apartment to house about 200 persons.

Pictures herewith with one exception were taken by W. Malcolm Lowry of Henrici-Lowry Engineering Co., designing and appraisal engineers of Kansas City, Mo., who recently returned from Russia.

TEXTILE WORLD'S GUIDE TO INTERNATIONAL TEXTILE EXPOSITION

Mechanics Building, Boston, Scene of the Show

DETAILED descriptions of the booths at the International Textile Exposition, Mechanics Building, Boston, Mass., April 28 to May 3, are given on the pages which follow. Booth numbers are reported, and these, together with the floor diagrams also given on following pages, comprise a complete guide for visitors to the show.

Abbott Machine Co., Wilton, N. H. Booths 132, 133. Winding machine and sample-swatch machine. Winder operating at full production to show speed at which bobbins can be tied on this type of machine. Both products new at textile shows. Represented by E. J. Abbott; W. G. Abbott, Jr.; A. Fisher.

Aberfoyle Mfg. Co., Philadelphia, Pa. (Same as Cotton Products Co. and J. J. Neil).

Alemite Co. of New England, Boston, Mass. Booth 551. Lubricating appliances and equipment. Showing Alemite barrel-to-bearing method of lubrication on textile machinery. Represented by F. McLaughlin, P. L. McLaughlin, Messrs. Stone, Watson, and Tilton.

American Glanzstoff Corp., Providence, R. I. Booths 526, 527, 528. Showing rayon yarns in skeins and cones, together with finished product, both woven and knitted; also both domestic and imported yarns of high and soft luster. M. Phinney, H. M. Bailey, Jr., H. A. Biggi in attendance.

American Laundry Machinery Co., Cincinnati, O. Booth 68. Exhibit includes "Super" rotary hosiery-dyeing machine of monel-metal construction. Two popular sizes shown, equipped with new direct-geared motor drives. Also showing 40-in. American O.T.-type hydro-extractor. Demonstrating 17-in. centrifugal extractor with all-monel-metal curb or case and monel-metal basket. Machine is arranged for motor drive. Represented by R. C. Caine, J. Abrams, F. B. Threapleton, J. E. Moore.

American Moistening Co., Providence, R. I. Booth 91. Showing various types of Amco humidifiers, humidity controls, Amco dampener, psychrometers, hygrometers, and miscellaneous equipment. New products include Ideal Senior humidifier, a high capacity unit, and Ideal Junior humidifier, a medium-high capacity unit. Represented by W. M. Trafton, F. J. Orme, F. B. Comins, H. B. Bradford, W. P. Woodcock, M. F. Guill, C. L. Ford.

AN INVITATION

Visitors at the International Textile Exposition, to be held next week at Mechanics Building, Boston, are cordially invited to visit TEXTILE WORLD'S booths (Nos. 62–63) and to call upon the representatives of this publication for any services they may be able to render.

American Pulley Co., Boston, Mass. Booth 339. Steel pulleys, hangers, and trucks. Featuring Sprucolite motor pulleys and new Sprucolite V-belt pulleys and warper beam heads. Represented by C. S. Reynolds, W. Tarbax, C. K. Sullivan.

American Tool & Machine Co., Hyde Park, Mass. Booth 20. Centrifugal extractors. Feature new link-suspended-type machine of rugged construction, equipped with special safety device, and designed for textile, laundry, or chemical trade. Represented by E. J. Eichler and others.

American Wool & Cotton Reporter, Boston, Mass. Booth 21. Textile publishers.

Armstrong Machine Works, Three Rivers, Mich. Booth 358. Steam traps. Feature glass model of Armstrong steam trap, operating under steam pressure. Represented by O. E. Ulrich, C. W. Gill, H. Files.

Ashton Valve Co., Boston, Mass. Booth 335. Ashton pop safety and relief valves; indicating and recording pressure and vacuum gages; gage testing outfit and kindred instruments. Showing new large master pilot pressure

gages and style CSH safety valves and other equipment. Featuring Ashton master pilot gages with single and double illuminated dials; Ashton No. 79 double-area dead-weight gage testers; style CSH cast-steel high-pressure pop safety valves for saturated or superheated steam service. Represented by H. H. Ashton, C. J. Burrage.

Ashworth Bros., Inc., Fall River, Mass. Booths 530, 531. Card clothing. Card-setting machine in operation. Featuring new developments.

Austin-Hastings Co., Inc., Cambridge, Mass. Booth 337. National-Shelby cold-drawn seamless steel tubing, steel boiler tubes, seamless steel pipe; Wilson electric and gasoline driven welding machines, Wilson "Color-tipt" arc-welding wires, Smith's acetylene welding and cutting equipment, welding accessories, and Union Drawn screw stock and shafting. The Wilson welding machines and Smith's Lifetime Guarantee welding and cutting equipment are new products. Represented by W. M. Austin, G. A. Hastings, T. S. Bell, G. J. Cushman, K. Hall, R. H. Wiles.

Bahnson Co., New York. Booth 85. Humidifier equipped with unit automatic humidity control; new master control designed to operate group of humidifiers so as to maintain constant relative humidity; and new conditioning-room system. Represented by L. O. Heingold.

Baldwin Chain & Mfg. Co., Worcester, Mass. Booth 400. Machine-finished chains and sprockets for power transmission and conveying; emphasizing steel roller chains, block chains, replacement roller chains, precision silent chains, accurate cut sprockets, and special chains. L. C. Havener in attendance.

Barber-Colman Co., Rockford, Ill. Booths 44, 45, 46, 50, 51, 52, Dept. A. Exhibit will include 100-spindle automatic spooler and a high-speed warper, both in operation. Spooler will be operated at standard speed of 1,200 yd. per minute, and warper will be operated at standard speed of 500 yd. per minute. Represented by R. E. McCausland, B. A. Peterson, R. G. Ross, F. D. Taylor, J. H. Spencer, S. R. McElroy, Messrs. Anderson, Moore, Mars, Savage, and Burgess.

Belger Co., Newton, Mass. Booth 338. Dept. D. Displaying automatic roving tester, Elastix rolls, production increaser for Nasmith combers, and patented sliver tester. Represented by O. A. Belger.

Birch Bros., Somerville, Mass. Booth 148, Dept. B. Dyeing and finishing machinery, mill sewing machines. Featuring improved open-width vacuum extractor with vacuum seal; two tanks of an eight-tank open soaper; scutcher with self-oiling governor pivot bracket; conical opener and angular guide; adjustable spiral opening rollers. The improved conical expander for taking out wrinkles, creases, and double edges and the motor-driven "Coronation" piece end sewing machine are new products. A. Birch, H. W. Birch, C. W. Birch in attendance.

Boiler Appliance Mfg. Co., Watertown, Mass. Booth 376. Showing Ferro-Chem, for the treatment of boiler feed water, and new King-Cole tube cleaner. Represented by G. H. Berge, C. E. Sullivan, F. C. Cole, L. N. Wheelock, W. J. Smith, C. F. Pelham, P. L. Blake.

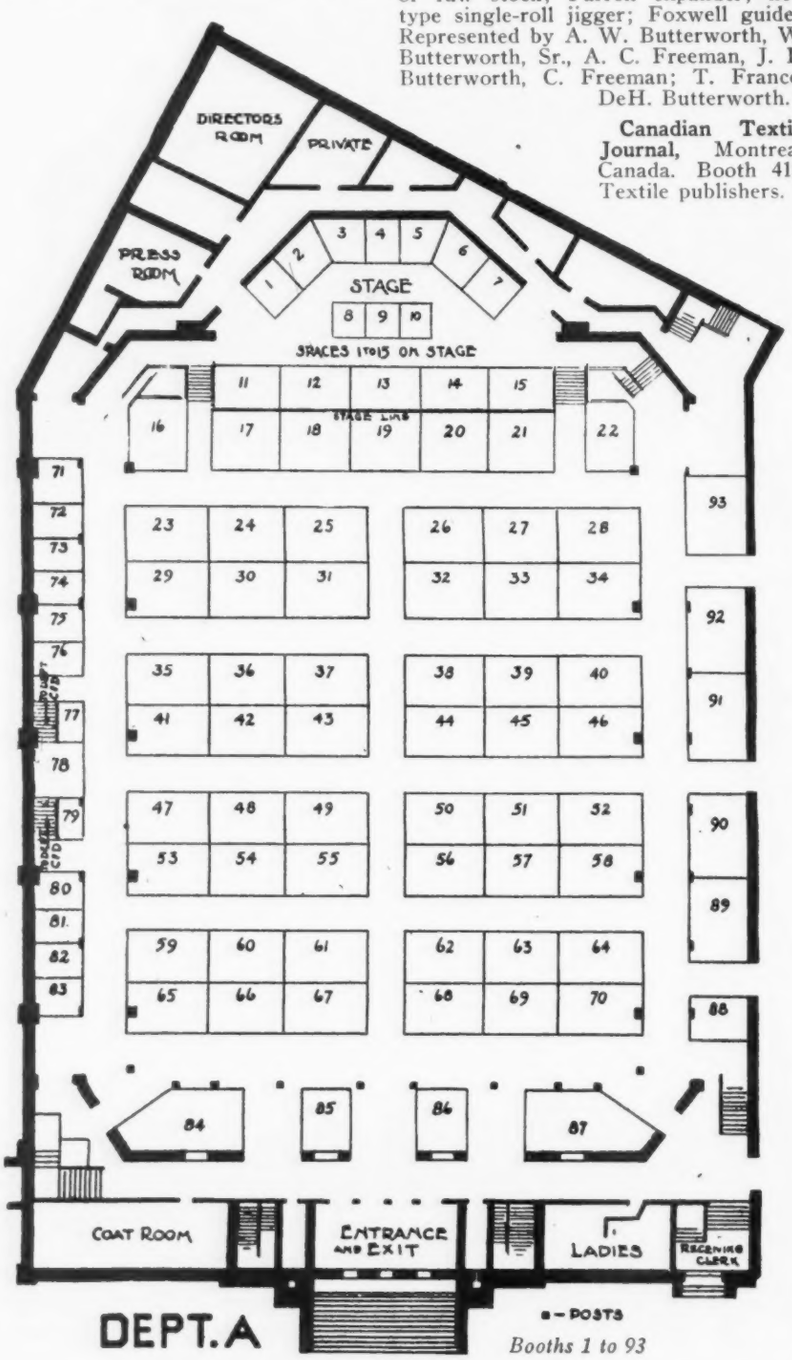
Borne Scrymser Co., Boston, Mass. Booth 93. Breton brand oils for wool; crystal shear oil; Breton Minerol products for scouring, conditioning, and finishing cotton, rayon, and silk; Brilliant Oils AX; washable semi-fluid type lubricants; Breton twister-ring greases. Feature Breton Minerol process for oil spraying for cotton. Represented by E. H. Hinckley, G. R. Lucy, A. M. Knight, R. C. Young, R. J. Kohler, C. D. Root.

Bristol Co., Boston, Mass. Booths 440, 507. Recording pressure and vacuum gages; recording thermometers; automatic temperature controllers, both air and electric; motor-operated control valves; humidity recorders; electrical recorders, cap and safety set screws, and steel belt lacing. Featuring automatic-control equipment, new electric recorder thermometer controllers, new air-type control equipment. Represented by H. L. Griggs, G. H. Gaites, J. L. Williams, and others.

Buffalo Foundry & Machine Co., Buffalo, N. Y. Booth 350. Dryers, evaporators, and chemical-plant equipment. Exhibiting model of new type Buflovak evaporator for concentrating mercerizing liquor, equipped with all accessories used in actual operation.

H. W. Butterworth & Sons Co., Philadelphia and Bethayres, Pa. Booths 100, 101. Showing 50-in. silk calender; Hussong circulating-type machine for yarn or raw stock; Farrell expander; new type single-roll jigger; Foxwell guider. Represented by A. W. Butterworth, W. Butterworth, Sr., A. C. Freeman, J. E. Butterworth, C. Freeman; T. France; DeH. Butterworth.

Canadian Textile Journal, Montreal, Canada. Booth 418. Textile publishers.



Booths 1 to 93

Carrier Engineering Corp., Newark, N. J. Booth 56. Air-conditioning and humidifying equipment. Featuring unit air conditioner, which fulfils all functions of Carrier system, humidifying, heating, cleansing air, and producing adequate ventilation. Represented by E. T. Lyle, D. C. Lindsay, P. L. Davidson, C. D. Park.

Champlain Silk Mills, New York, N. Y. Booth 419, E. Spunsilk yarns, silk and wool yarns, knitting yarns, dyed yarn of all descriptions, novelty yarns of unusual construction. Technical service for weavers and knitters under supervision of J. Meierhans. Represented by C. D. Wolke, J. J. Herbert, J. Meierhans, A. S. Rogers, S. L. McQuaid.

Chromium Corp. of America, New York. Booths 443, 444. Rolls, etc., chromium plated to prevent wear and corrosion. E. R. Granger in attendance.

James Clark, Jr., Electric Co., Louisville, Ky. Booth 368. Showing portable and stationary drilling, grinding, and buffing machinery; portable hand drills; new Clark Wonder electric drill. Represented by G. E. Stevens, H. I. Atwood, K. Clark.

Cling-Surface Co., Buffalo, N. Y. Booth 425. Exhibiting special power-driven machine to demonstrate efficiency of slack-running belts having Cling-Surface treatment. G. N. Parker and W. F. Lauffert in attendance.

Clipper Belt Lacer Co., Grand Rapids, Mich. Booth 15. Clipper belt lacers, fasteners, and connecting pins; also belt cutters with safety features. Electrically operated Clipper Ship display will be featured. New products include Clipper speed lacers, Nos. 6 and 8. C. D. Disney in attendance.

Condit Electrical Mfg. Corp., Boston, Mass. Booth 216. Showing various types of motor starters, including demonstration set consisting of motor starter and 15-hp. motor, which shows arcless interruption as obtained in this type air motor starter and other new starters based on this type. Represented by R. J. Neagle, G. W. O'Keeffe, K. B. Seely, H. Dijadon, W. H. Lawler.

Consolidated Ashcroft Hancock Co., Inc., Bridgeport, Conn. Booth 29. American industrial instruments for indicating, recording, and controlling the elements of temperature, pressure, and speed. Working model of recording thermometer with internal parts exposed. U. H. Nickerson, M. A. Lyon, A. E. Campbell, E. F. Nordstrom in charge.

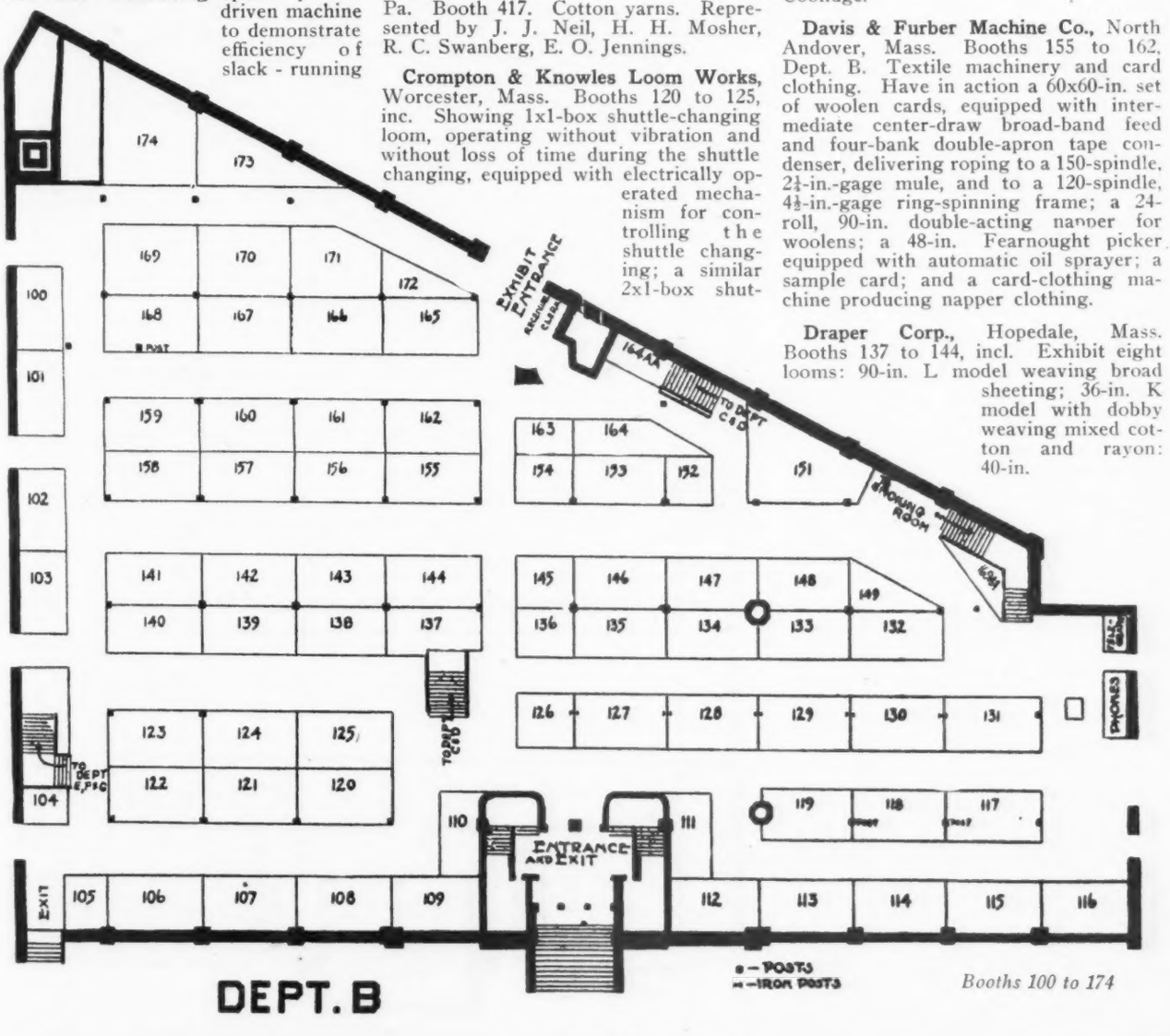
Cotton Products Co.. Philadelphia, Pa. Booth 417. Cotton yarns. Represented by J. J. Neil, H. H. Mosher, R. C. Swanberg, E. O. Jennings.

Crompton & Knowles Loom Works, Worcester, Mass. Booths 120 to 125, inc. Showing 1x1-box shuttle-changing loom, operating without vibration and without loss of time during the shuttle changing, equipped with electrically operated mechanism for controlling the shuttle changing; a similar 2x1-box shuttle-changing loom; new automatic pick-and-pick "Verybest" worsted loom, capable of handling four distinct fillings, 4x1-box automatic "Verybest" worsted loom equipped with "slow-time" head, which permits faster operation without strain; 4x1-box automatic "Cotton King" loom; intermediate-head automatic silk loom, with harnesses positively raised and lowered, capable of weaving any quality; new simplified cone-harness-motion silk loom, having 61 fewer parts than its predecessor and many improved motions; and several loom devices, including a new electrical warp stop motion, new mechanical let-off motion, paperless warp beams, and "rubber sandpaper" for covering take-up rolls on silk looms. Represented by Messrs. Tinsley, Howe, Verry, and others.

Curtis & Marble Machine Co., Worcester, Mass. Booths 89, 90. Group of textile-finishing machinery. Featuring new guider; vertical brushing combination; improved cotton shear, Type C; Truslow blending machine for mixing stock; mantle steaming machine for finishing woolens and worsteds. Represented by E. H. Marble, W. C. Marble, C. F. Marble, A. C. Marble, G. E. Marble, W. H. Marble, E. T. Marble, 2nd, R. Marble, C. H. Dalton, C. H. Coolidge.

Davis & Furber Machine Co., North Andover, Mass. Booths 155 to 162, Dept. B. Textile machinery and card clothing. Have in action a 60x60-in. set of woolen cards, equipped with intermediate center-draw broad-band feed and four-bank double-apron tape condenser, delivering roping to a 150-spindle, 2¼-in.-gage mule, and to a 120-spindle, 4½-in.-gage ring-spinning frame; a 24-roll, 90-in. double-acting napper for woolens; a 48-in. Fearnought picker equipped with automatic oil sprayer; a sample card; and a card-clothing machine producing napper clothing.

Draper Corp., Hopedale, Mass. Booths 137 to 144, incl. Exhibit eight looms: 90-in. L model weaving broad sheeting; 36-in. K model with dobby weaving mixed cotton and rayon: 40-in.



Booths 100 to 174

K model weaving broadcloth; 40-in. E model weaving print cloth; 32-in. modified D model weaving no. 10 duck; 72-in. worsted loom; 54-in. S-4 model dobby loom weaving silk crepes; and 54-in. S-4 model taffeta loom weaving crepes. Also exhibiting new high-speed warper and G model warper; L model spooler; H model twister; Bunch Builder; Morrill and Rhoades slasher combs. Showing spindles, rings, shuttles, bobbins, and other small appliances. Represented by E. N. Darrin, T. H. West, L. M. Newell, T. Henderson, A. E. Stafford, T. F. Braziel.

Du Pont Cellophane Co., New York. Booth 23. Showing various textile items packaged in Cellophane, especially ensemble units, such as Cannon towel sets. B. C. Robbins and J. B. Post in attendance.

E. I. DuPont de Nemours & Co., Dyestuffs Dept., Boston, Mass. Booths 25 and 31. Showing fabrics dyed with DuPont fast colors. Featuring new Chlorine Fast Blue, Leucosol Blue CL Paste, Leucosol Black BB Paste, and Pontacyl Fast Black NC (non-crocking black). E. A. MacKinnon in charge.

DuPont Rayon Co., New York. Booths 24, 30. DuPont yarns in various put-ups, and fabrics made of DuPont yarns. Featuring careful inspection of yarn and advertising. Represented by R. H. Fisher and E. C. Harrington.

Durant Mfg. Co., Milwaukee, Wis., and Providence, R. I. Booth 442. Counting and measuring machines. Featuring pick counters for single shift; pick counters for day and night shift; electrically operated counters for remote control. Demonstrating new heavy-duty electrically operated counter for all standard electric circuits. Represented by L. A. Nourie, W. K. Winkler, J. D. Crowley, F. D. Rankins.

Eclipse Textile Devices, Inc., Elmira, N. Y. Booths 324 to 327, inc. Exhibiting spinning frame equipped with Eclipse bobbin holder, a device taking the place of the wooden skewers; winder equipped with Eclipse yarn-cleaning device and slub catcher. The latter, a new product recently introduced to the worsted trade, is on exhibition for the first time. Also showing the single-color Eclipse-Van Ness dyeing machine. J. C. Ferguson, J. P. Gary, J. D. Lutes, L. B. Hasbrouck, L. A. Uttrich, J. D. Mann in attendance.

Economy Lubricating Co., Charlestown, Mass. Booth 357D. Grease lubricants and boiler treatment. Showing samples of grease for grease gun work and demonstrating new economy belt preservation. Represented by H. A. Atkinson, J. F. McCurdy, T. M. Atkinson.

Elwell-Parker Electric Co., Cleveland, Ohio. Booth 345. Dept. D. Showing three types of electric industrial trucks—the Chisel truck for handling bales, bags, boxes, etc., capable of picking a load from floor and depositing it on floor, or of piling to a height of 6 or 8 ft.; the Hi-Lift platform truck, with a capacity of 4,000 lb. and ability to pile up to 9 ft.; and the lift truck, designed for use with hand-lift trucking platforms. G. E. Kent in charge, assisted by H. Hansen, G. J. Schirch, J. D. Crowley.

Fafnir Bearing Co., New Britain, Conn. Booths 38, 39A. Featuring application of Fafnir ball bearings to textile machinery, illustrated with line of applications in successful service. Represented by R. N. Hemenway, C. F. Stanley, H. B. Chamberlin, H. W. Dryden, H. R. Reynolds, Mr. Berg.

Fairchild Publications, Boston, Mass. Booth 436. Textile publishers.

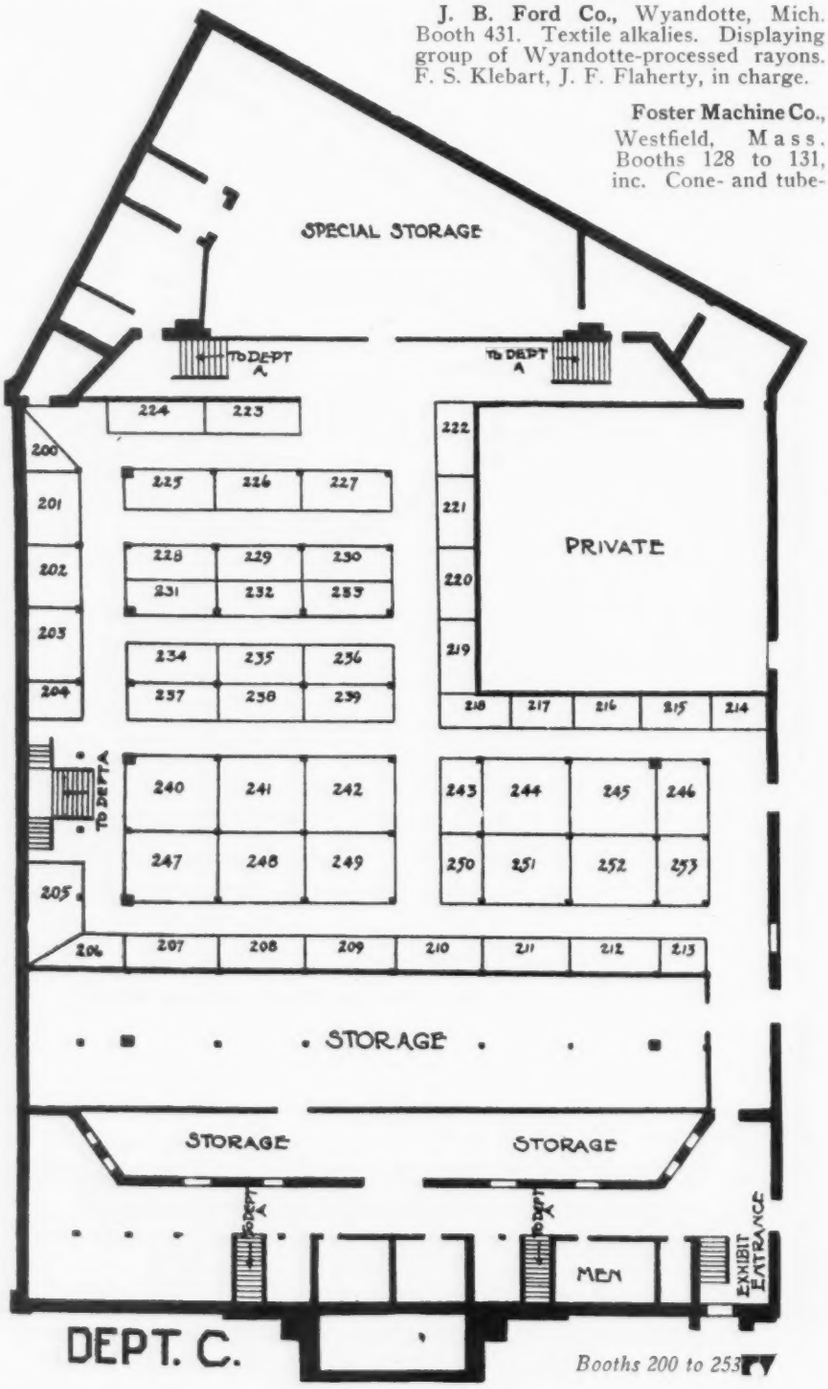
Fidelity Machine Co., Philadelphia, Pa. Booths 3, 4, 5. Displaying 16-carrier 4-head No. 1 braiding machine equipped with Mossberg high-speed carriers and individual motor drive; 16-carrier 4-head No. 2 braiding machine with individual motor drive and Mos-speed carriers; 17-carrier 4-head No. 2 braiding machine; style S-5 single-feed Fidelity universal ribber with welt, loose course, selvage welt, dogless feature, and two-speed drive; and display of products obtained on Fidelity Thomas creasing machine and of true-ribbed hosiery produced on Fidelity ribbers.

Fibre & Fabric, Cambridge, Mass. Booth 504. Textile publishers.

Finnell System, Inc., Elkhart, Ind. Booth 73. New 1930 line of electric floor scrubbing, polishing, and waxing machines and auxiliary units, such as electric vacuum mopping machines, mop trucks, etc. F. F. Greetham, W. H. Fisher, P. B. Bagley, E. E. Radasch, S. E. Allen in attendance.

J. B. Ford Co., Wyandotte, Mich. Booth 431. Textile alkalies. Displaying group of Wyandotte-processed rayons. F. S. Klebart, J. F. Flaherty, in charge.

Foster Machine Co., Westfield, Mass. Booths 128 to 131, inc. Cone- and tube-



Booths 200 to 253

winding machines, open and precise wind; high-speed yarn-doubling winders; and high-speed cone-warping system. Featuring magazine creel and high-speed cone winders to supply creel. Showing new Foster single- and double-process system of doubling, and model K silk and rayon cone winder. Represented by T. E. Connor, C. B. Terry, D. W. Bridgman, R. W. Ensign, H. A. Cadle, Lester Campbell, James E. Wood.

Frigidaire Corp., Dayton, O. Booths 333, 336. Refrigerating apparatus.

General Electric Co., Schenectady, N. Y. Booths 57, 58. Motors and controls applicable to textile work. Showing loom, picker, and rayon motors with complete automatic control; adjustable-speed motors for both alternating- and direct-current operation. Featuring recording instruments and new "Electraulic" operator for application to brakes, clutches, etc., in place of large alternating- or direct-current magnets. Represented by T. H. Reeves.

General Electric Vapor Lamp Co. (formerly Cooper Hewitt Elec. Co.), Hoboken, N. J. Booths 82, 83. Cooper Hewitt mercury vapor lighting. Operating display showing applicability of this lighting to textile field. Represented by C. F. Strebig, J. E. Watkins, and others.

David Gessner Co., Worcester, Mass. Booth 173. Demonstrating finishing machine for steaming and setting fabrics, showing how quality of finish is obtained by new size of steaming cylinder and new method of controlling steam. Represented by J. Barr, W. L. Gunther, J. P. Franklin, D. Gessner.

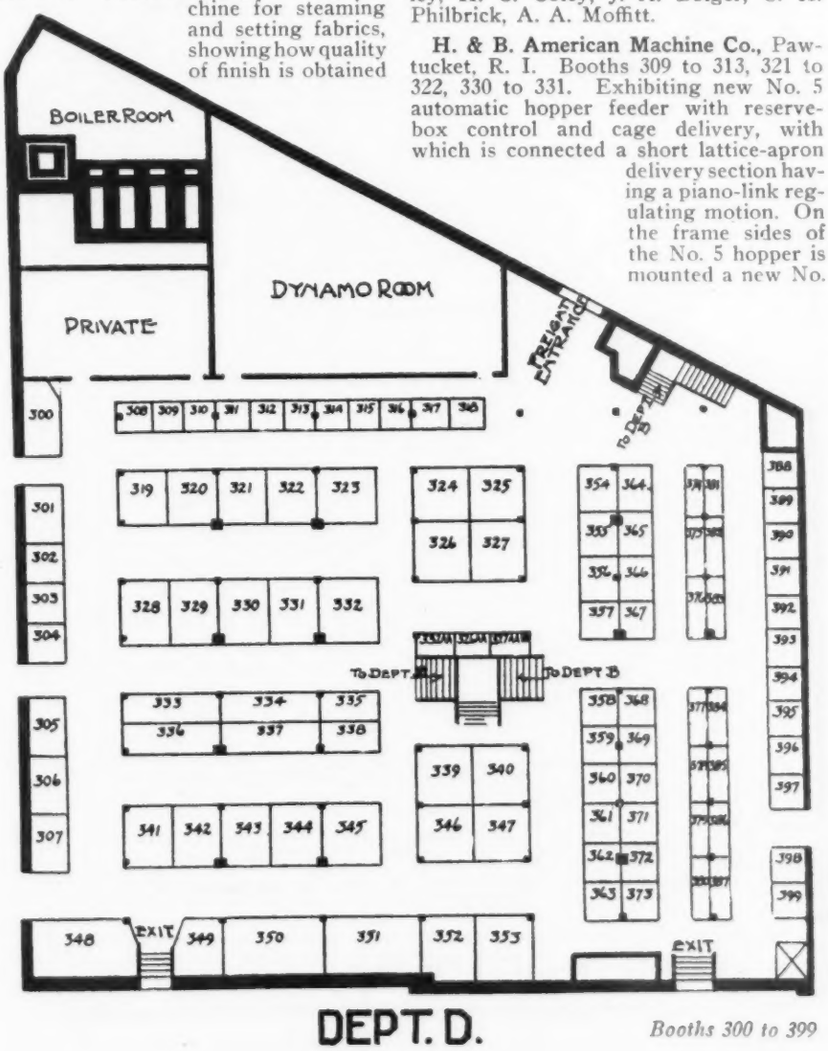
H. C. Greenfield Engineering Co., Harrison, N. J. Booth 340, Dept. D. Exhibiting Croquette waste saver and Torrance sampling card. Represented by H. C. Greenfield and F. I. Morrison.

John Hetherington & Sons, Inc., Boston, Mass. Booth 225, Dept. C. Textile machinery. Exhibiting 1925-model Nasmith comber, six heads, 12½-in. laps, using a 650-gr. lap, and running at a speed of 95 nips per minute, giving a production of 15 to 18% over the original model. H. Harrison represents company.

E. F. Houghton & Co., Philadelphia, Pa. Booths 543, 544, 545. Showing lubricating oils, leather belting, and textile leathers. Featuring new applications of Lanolubric, Full Scour, Cottonlubric, Sulfol, Houghton's Aid, Silklubric, Raylubric. Represented by R. K. Gurney, H. C. Roberts, J. Coleman Bentley, Frank A. Duff, W. J. Murray, G. W. Schaeffer.

Howard Bros. Mfg. Co., Worcester, Mass. Booth 69, Dept. A. Showing card clothing, hand stripping cards, wire heddles, and a machine manufacturing card clothing. Represented by H. Midgley, H. C. Coley, J. A. Bolger, C. H. Philbrick, A. A. Moffitt.

H. & B. American Machine Co., Pawtucket, R. I. Booths 309 to 313, 321 to 322, 330 to 331. Exhibiting new No. 5 automatic hopper feeder with reserve-box control and cage delivery, with which is connected a short lattice-apron delivery section having a piano-link regulating motion. On the frame sides of the No. 5 hopper is mounted a new No. 9 cage exhauster. This concern is also showing a new single-beater finisher lapper fitted with Ramsdell automatic self-doffing calender, which automatically removes the completed lap, places a new lap roll in the calender plates, folds over the lap end, lowers the lap racks, and applies the brake. Also shown is a standard-model spinning frame, 48 spindles, 3½ in. gage, fitted with L. & B. high-draft system. Another feature of this exhibit is a new model (1930) ring-spinning frame, designed to give increased stability at maximum speed. Represented by J. W. Rimmer, W. Adkinson, J. Perry, A. A. Aspinwall, W. Bowker, J. F. Jackson, W. Farrow, W. Rush, J. C. B. Washburn, F. Hyde.



DEPT. D. *Booths 300 to 399*

Howes Publishing Co., New York. Booths 432, 433. Textile publishers.

Hyatt Roller Bearing Co., Newark, N. J. Booth 22. Roller bearings of various types suitable for application to textile machinery. Featuring skeletonized loom frame completely Hyatt equipped. Each Hyatt mounting is cut away to expose the bearing and is readily accessible for inspection. Also a continuous card stripper of the latest design with a traversing mechanism. Represented by H. K. Porter, W. L. Iliff, H. M. Carroll, F. U. Naughton, Jr., G. H. Woolley, Jr.

Industrial Drives, Inc., Worcester, Mass. Booth 218. Showing new mechanical automatic clutches, automatic cut-off couplings, and automatic starters, especially designed for reducing starting torque and eliminating starting shocks. Represented by L. L. Nakashian.

International Engineering Works, Inc., Framingham, Mass. Booth 359.

International Nickel Co., Inc., New York. Booth 87. Showing monel-metal and nickel in all forms as used for the construction of dyeing, bleaching, and finishing machinery, also their application in power-plant equipment. Exhibit includes monel-metal hosiery-dyeing machines, steam-jacketed kettles, and centrifugal extractors with monel-metal baskets. In charge of E. A. Turner.

E. H. Jacobs Mfg. Co., Danielson, Conn. Booth 1. Canvas and leather loom specialties, including lug straps, loom pickers, strapping, harness cords, etc. New features are the improved General Electric Textolite loom picker, the Jacobs "Master" Verybest lug strap, and the Jacobs leather loop picker with Textolite insert. Textolite treadle rolls and parallel plugs also on display. D. H. White and J. H. Chadbourne, Jr., in attendance.

Johnson & Bassett, Inc., Worcester, Mass. Booths 152, 153, 154, 163, 164. Dept. B. Wool-spinning machinery. Showing latest-model mule, embodying new-type mule spindle designed for use with long automatic bobbins and heat treated to prevent bending. Mule is equipped with many ball bearings and with oil-retaining collar boards and step rails. Represented by C. E. Williams, E. Ahern, and others.

Keene Silk Fibre Mills, Keene, N. H. Booths 508, 509. Displaying real-silk and rayon yarns in white, color, and twists, suitable for fancy suitings and cloakings; novelty yarns, including slub yarns, splash yarns, and wool and rayon mixtures, as used by cotton, worsted,

and silk manufacturers; silk waste; and garnetts. Also showing fabrics, draperies, and garments, illustrating different yarns and wastes. Represented by V. E. Austin, A. H. Kendall, E. P. Lufkin, W. Millington, Jr.

Keystone Lubricating Co., Boston, Mass. Booths 80, 81. Greases, grease cups, and safety lubricators. Featuring Keystone lubricator with circuit header line, showing various types of pressure-reduction valves. New products include stainless and liquid greases, automatic grease cups, and pressure guns and fittings. Represented by F. D. Street, L. A. Webster, H. J. Cass, C. H. Tholl, F. T. Abell.

A. C. Lawrence Leather Co., Peabody, Mass. Booth 447. Leather equipment for textile mills. Featuring roller leathers, spinner calf, and Aclo brand roller sheep. Displaying samples of leathers. Represented by G. S. Gibson, H. H. Hersey, F. Holden, R. N. Cummings.

Lestershire Spool & Mfg. Co., Johnston City, N. Y. Booths 13, 14. Fiberhead spools of all kinds. Featuring new construction in fiber spools, and high-speed narrow-fabric warper operating continuously from stationary spools with maximum yarn speed of more than 700 yd. per minute. Represented by H. D. Clinton, L. E. Wooten, W. M. Aspinwall.

Oswald Lever Co., Philadelphia, Pa. Booths 17, 18, 19. Winding machinery, bottle-bobbin winding machines, No. 20 high-speed cop and bobbin winding machine, high-speed creel. Show new No. 20 high-speed winder and high-speed warping creel, emphasizing high-speed warping for silk, rayon and fine cotton; and high speed bobbin winding. Represented by J. D. Joyce, W. T. Joyce, L. R. Unruh.

Thos. Leyland & Co., Inc., Boston, Mass. Booths 77, 78. Improved regulating cloth expanders, scutchers, straight and angular guides. Featuring expanders suitable for water mangles, starch mangles, dry cans, regular rolling calenders, friction calenders, new rubber-covered expanders; and new scroll rolls for scutchers. Represented by F. T. Walsh, Arthur Isherwood, S. A. Mathews, J. E. Puffer.

Link-Belt Co., Chicago, Ill. Booth 79. Showing silent-chain drives, roller-chain drives, and other equipment. Represented by H. D. Mitchell, J. S. Watson, H. Bowman, W. J. Clopp, A. R. Pierce, and others.

William P. Little Co., Stratford, Conn., and Brookline, Mass. Booth 315. Showing Charavay aeroplane-propellor-type fans and Wolverine unit heaters. New overlapping propellor blade claimed to prevent negative air flow. W. P. Little and C. W. Hoyt in attendance.

Marble-Nye Co., Worcester and Boston, Mass., Providence, R. I. Booth 503. Heavy chemicals; lubricating, wool, and olive oils; potato, corn, and wheat starches. Attended by H. S. Fairclough, W. B. Jenkins, G. N. Hathorne, F. H. Leonard, P. A. Parker, H. L. Gilson, K. M. Simpson.

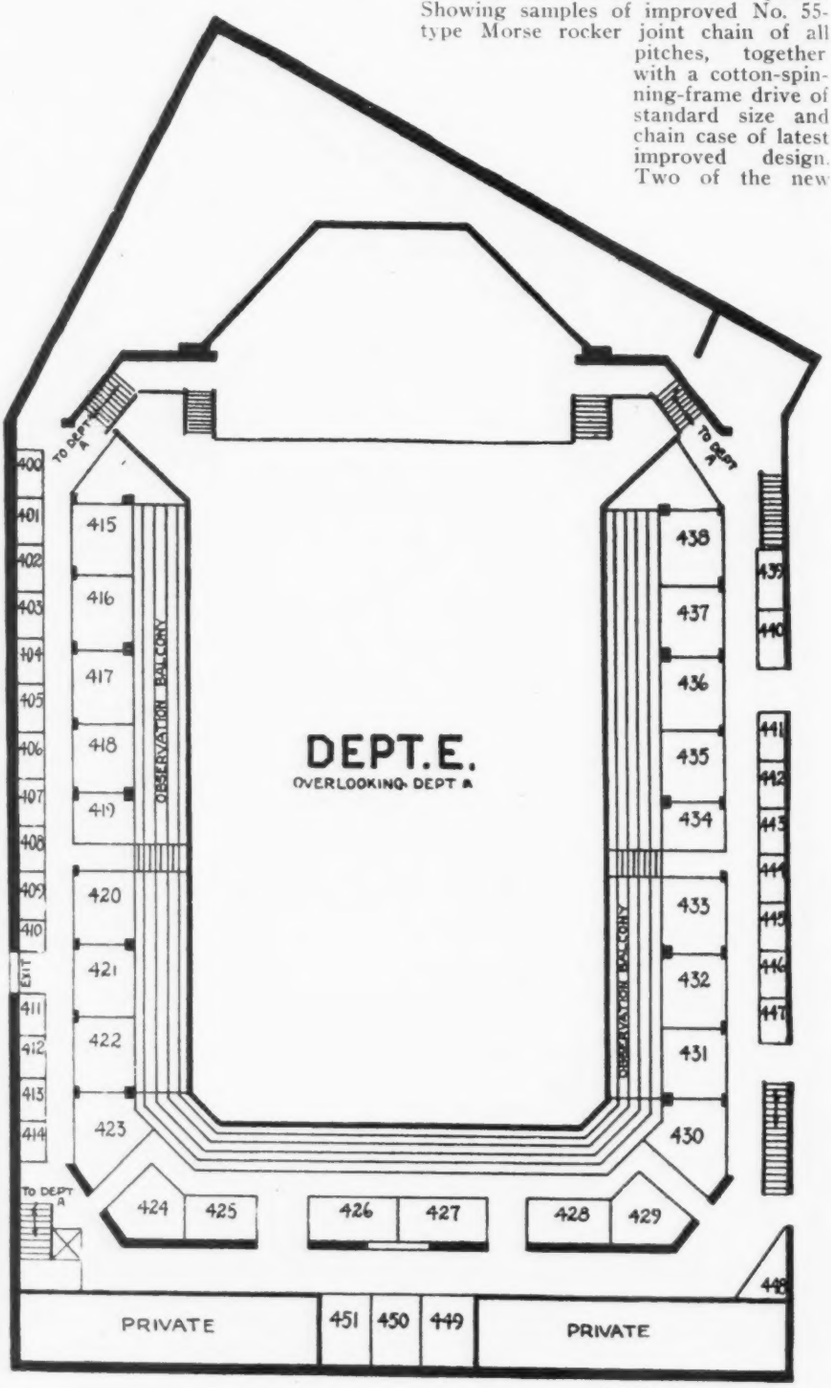
Mason Regulator Co., Boston, Mass. Booth 328. Mason pressure-reducing valves, pump governors, damper regulators, balanced valves. Featuring No. 11 all-bronze standard reducing valve and No. 21 reducing pressure valve, especially adapted for slasher service. Represented by F. K. Morrison, N. P. Bates, H. L. Colby, F. A. Morrison.

Melliand, Inc., New York. Booth 512. Textile magazine publishers.

Minneapolis-Honeywell Regulator Co., Minneapolis, Minn. Booth 334. Automatic-control apparatus. Showing latest-type control equipment for automatic oil burners and gas-fired boilers; temperature-control equipment for industrial processes, including unit-heater, zone control, and individual radiator valves; and control equipment for domestic heating plants burning coal, oil, or gas. Represented by W. F. Arnoldy, L. A. Hagan, R. E. Cross, J. Turner, F. H. Smith, A. A. Troiani, G. B. Lee, J. Haines.

Mixing Equipment Co., Inc., New York. Booth 549. Showing electric portable mixers, particularly improved Lightnin portable mixers in various sizes of geared type and direct-drive type for mixing bleaching solutions, dyes, colors, chemicals, gum and starch solutions, soaps, emulsions, etc. Represented by F. L. Craddock, C. H. King, D. R. McKillican.

Morse Chain Co., Ithaca, N. Y. Booth 6, Dept. A. Silent-chain drives with rocker joints for transmission of power. Showing samples of improved No. 55-type Morse rocker joint chain of all pitches, together with a cotton-spinning-frame drive of standard size and chain case of latest improved design. Two of the new



Booths 400 to 451

products are the Morse flexible coupling and the Morse chain speed reducer, a self-contained transmission unit designed to run chain drives instead of gears. Represented by F. G. Anderson, T. M. Manley, W. W. Bertram, Charles C. Crandel, J. W. White.

Mossberg Pressed Steel Corp., Attleboro, Mass. Booths 540, 541. Pressed-steel beam heads, drop wires, braider carriers, reels, etc. Featuring paperless rayon warp on an ordinary wooden loom-beam barrel with Mossberg "Redhead" adjustable flanges. Showing drop wires made with burnished thread eye especially suited for rayon warps, and five "Maypole" type braiders equipped with "Mosspeed" carrier. Represented by F. Mossberg, R. V. Olson, A. E. Sparks, Jr., W. S. Swanson, R. Holbrook, B. Johnson.

Charles M. Mumford, Boston, Mass. Booth 87AA. Mill engineer.

Nathan Mfg. Co., New York. Booths 355, 356. Showing forcefeed mechanical lubricators, rayon pump in operation, miscellaneous mechanical lubricators with various types of bearings and other parts lubricated in actual operation. New products include improved multi-piston-type rayon pump and Type P and Type PS mechanical lubricating heads for general machinery, engines, and compressors. Represented by M. H. Potter.

J. J. Neil, Boston, Mass. Booth 417. Displaying mercerized and unmercerized cotton yarn. Featuring aromatic yarn and Durene. Represented by J. J. Neil and H. Mosher.

New York & New Jersey Lubricant Co., New York City. Booth 525, Dept. F. Lubricants. Demonstrations of non-fluid oils for textile machinery.

John P. Nissen, Jr., Co., Philadelphia, Pa. Booth 533. Dye-resist writing tubes and bleach-proof color writing tubes for the marking of silks, plushes, cottons, rayons, and miscellaneous piece goods. A. I. Eyster and J. P. Nissen, Jr., in attendance.

Oakite Products, Inc., New York. Booth 550. Displaying fabrics and finished garments processed with Oakite materials, showing improvement obtained in boiling-out, bleaching, degumming, dyeing, fulling, and soaping operations. Model string washer, in operation, demonstrating use of Oakite. Represented by H. L. Gray, C. Johnson, W. Jordan, H. L. Trembicki, G. Gregory, L. W. McCann, A. L. Conant.

Olmsted-Flint Corp., Cambridge, Mass. Booth 435. Ball bearings and transmission equipment, including leather belting and flexible couplings. Featuring Rockwood Unipull drive. Represented by E. H. Cargen, F. M. Schiffmacher, F. G. Burns.

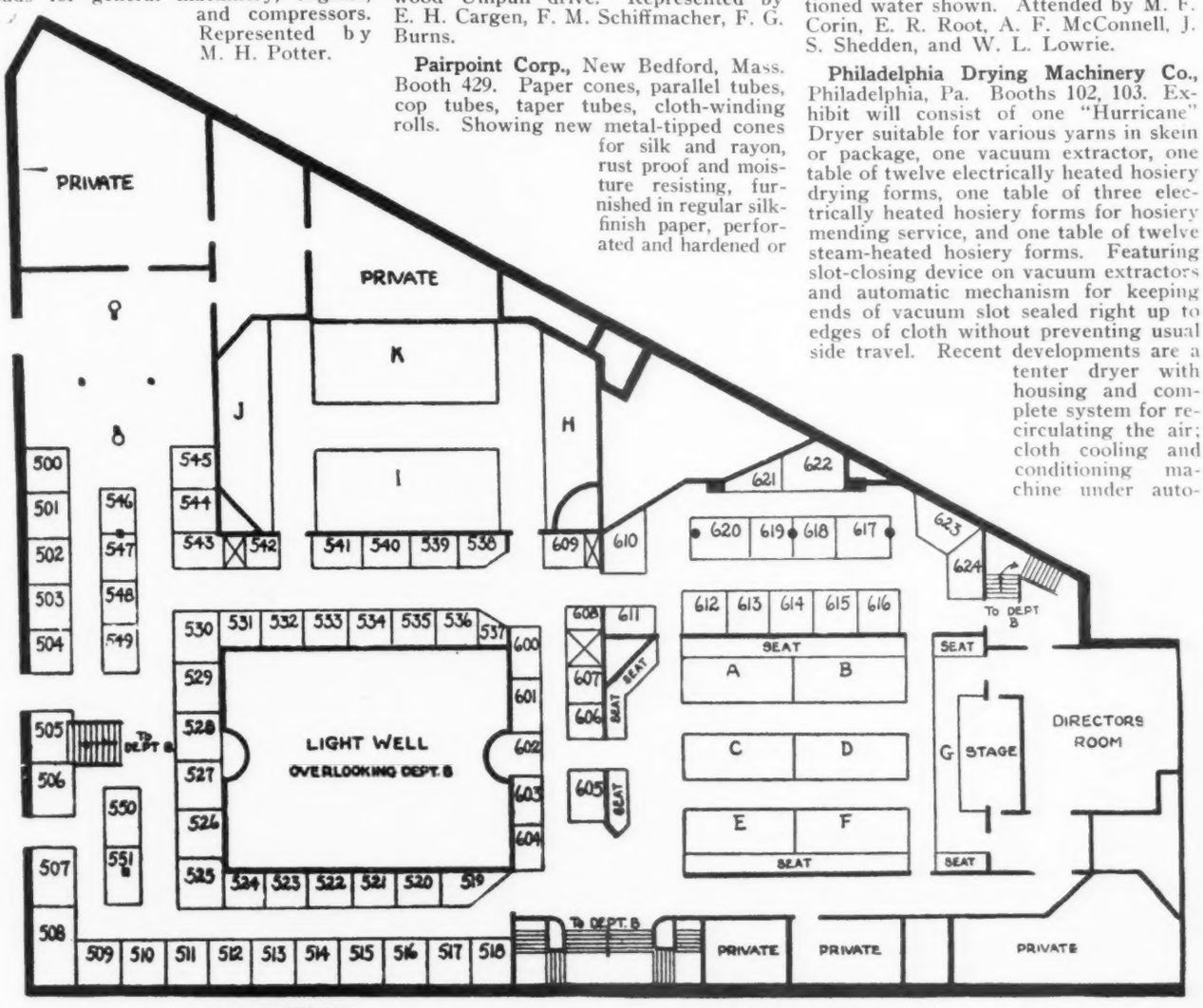
Pairpoint Corp., New Bedford, Mass. Booth 429. Paper cones, parallel tubes, cop tubes, taper tubes, cloth-winding rolls. Showing new metal-tipped cones for silk and rayon, rust proof and moisture resisting, furnished in regular silk-finish paper, perforated and hardened or with velvet-finish surface. A. F. Salmon and P. I. Fletcher in attendance.

Parks-Cramer Co., Fitchburg, Mass., and Charlotte, N. C. Booths 8, 9, 10, Dept. A. Humidifiers and regulators of various types in operation. Featuring new unit air conditioner, new hygroscopic regulators and new two-step control for air conditioning. Represented by H. M. Parks, R. S. Parks, S. W. Smith, A. F. Karlson, A. W. Thompson, R. H. Brown, T. Francis, W. J. Buck, Lelland Ross, B. S. Cottrell, R. E. Dorr.

B. F. Perkins & Son, Inc., Holyoke, Mass. Booth 430. Calenders, calender rolls, and testing machines for textiles. Featuring new packingless dollhead bearing for drying machines. Represented by W. Woosman, J. H. Hamilton, T. Holgate, W. L. Foote.

Permutit Co., New York. Booth 16. Water softeners, filters, chemical feeds, and other apparatus for removing impurities from water. Exhibiting several types of chemical feeds, including a full-sized industrial unit in operation, demonstrating the method of control by which chemicals are fed simultaneously with, and in proportion to, the flow of water. Photographic exhibit of typical installations, also layout drawings. Fabrics processed in Permutit-conditioned water shown. Attended by M. F. Corin, E. R. Root, A. F. McConnell, J. S. Shedden, and W. L. Lowrie.

Philadelphia Drying Machinery Co., Philadelphia, Pa. Booths 102, 103. Exhibit will consist of one "Hurricane" Dryer suitable for various yarns in skein or package, one vacuum extractor, one table of twelve electrically heated hosiery drying forms, one table of three electrically heated hosiery forms for hosiery mending service, and one table of twelve steam-heated hosiery forms. Featuring slot-closing device on vacuum extractors and automatic mechanism for keeping ends of vacuum slot sealed right up to edges of cloth without preventing usual side travel. Recent developments are a tenter dryer with housing and complete system for recirculating the air; cloth cooling and conditioning machine under auto-



Booths 500 to 624

matic control; continuous cloth saturating, extracting, drying, and carbonizing machine of new design; and new dryers for rayon in skein or package. E. L. Smith and W. W. Sibson in attendance.

Procter & Gamble Distributing Co., Cincinnati, Ohio. Booth 434. Textile soaps. Emphasizing olive-olate soap flakes and new palm flakes. Represented by G. Tanguay, W. W. Bray, and E. M. Kelly.

Proctor & Schwartz, Inc., Philadelphia, Pa. Booths 165 to 172, inc. Drying, carding, and garnetting machinery. Displaying latest types of Proctor dryers for raw stock, package yarns, and skein yarns. Adaptations for all fibrous and loose materials, yarns, piece goods, hosiery, carpet, and other textile materials shown in photographs. New developments in carding by the woolen system and in garnetting shown. Represented by C. W. Schwartz, 3rd, Thomas R. Moorhead, Wm. B. Rihl, H. B. Riehl, J. H. Senior, R. J. Hill, G. Schmidt, F. Kershaw, T. W. Allen, T. J. Wilson, W. J. Maney, E. B. Kerst, W. Bokum.

Q-P Signal Co., Needham Heights, Mass. Booth 314. Displaying water, steam, oil, gasoline, and ammonia packings; featuring Q-P self-setting packing, and ratchet flange wrench. The Q-P ratchet flange wrench is a new product. A. R. Pinney, A. G. Day and W. C. Swain will be in attendance.

Chas. P. Raymond Service, Inc., Boston, Mass. Booth 169AA. Employment agency.

Reeves Pulley Co. of N. Y., Inc., New York and Boston. Booth 76. Variable-speed transmissions. Showing automatic electrical- and mechanical-control variable-speed transmissions; vertical variable-speed transmissions; remote-electrical-control variable-speed transmissions; new double-block center-pull V-belt; patented bearing mounting; thrust and radial ball-bearing construction; indicating and recording tachometers. D. W. Clem, E. R. Baum, C. L. Irwin, H. W. Randolph in attendance.

R. I. Humidifier & Vent Co., Boston, Mass. Booths 343, 344. Humidifying equipment and automatic humidity control. Featuring new low-pressure humidifiers and self-recording humidity control. Represented by G. A. D'Arcy, G. W. D'Arcy, W. F. C. Turnbull.

Rhode Island Warp Stop Equipment Co., Pawtucket, R. I. Booths 134, 147. Exhibiting the K-A electrical warp stop motion. Featuring electrical filling feeler and electrical attachment for mechanical filling feeler used in conjunction with K-A electrical warp stop motion. Represented by E. C. Smith, M. Chamberlain, B. Bellarose, J. Bolton, F. Quance, W. D. Whittaker, G. W. Smith.

John R. Robinson, New York. Booth 308. Steelbestos gaskets, triple-blade tube-hole cleaners, and other articles used in the boiler room of steam plants. J. R. Robinson and others in attendance.

Roessler & Hasslacher Checimal Co., New York. Booths 415, 416. Chemicals. Peroxide kier bleaching process featured in booth, which represents interior of a bleach house. Booth hung with peroxide-bleached toweling and sheeting. Advantages of iron kier emphasized.

B. S. Roy & Son Co., Worcester, Mass. Booth 151 B. Textile grinding machinery. Showing following: For woolen and worsted mills—Roy 60-in. heavy-pattern floor-frame grinder, equipped with improved Roy traverse wheel, 5-in. shell type and with roller-bearing chain and aluminum grinding wheel. Attached to floor frame is a turning rest or lathe. Frame is motor equipped, controlled by two push-button stations, one on either side. For cotton mills—Set of cotton-card grinders, consisting of two traverse and one roller grinder. Special stand showing different parts of cotton-card grinder. Represented by D. H. Dewar and W. A. Underwood.

Saco-Lowell Shops, Boston, Mass. Booths 35 to 37, inc., and 41 to 43, inc. Pickers, cards, roving frames, spinning frames, and twisters. Featuring positive-driven twister, continuous stripper, large-package spinning frame, one-process picking (model B), and new-type beam twister. Represented by J. Strang, F. E. Rowe, Jr., W. W. Gayle, J. L. Graves, Miles Comer, John M. Reed, H. C. Cole, W. F. Lowell.

Henry L. Scott Co., Providence, R. I. Booths 71, 72. Testing apparatus for the textile trade. Three new models of machines for tensile strength determinations of textiles shown. Those in attendance will be D. C. Scott, W. H. Whitcomb, and E. B. Bolton.

Scott & Williams, Inc., New York. Booths 126, 127A. Knitting machinery. Exhibiting complete line of seamless hosiery machines, also body machines for underwear fabrics. Featuring new gusset-toe model-K machine, embodying the 25-step spiral mechanism, producing fancy lace clocks, net laces, fancy heels of all kinds; this seamless machine is 3½ in. in diameter, 340 needles. Also exhibiting H.H. machines for fancy half-hose patterns. Showing for first time in this country redesigned interlock machine for underwear manufacturing.

S.K.F. Industries, Inc., New York. Booth 70. Ball and roller bearings. Displaying model spinning frame equipped with plain-bearing spindles and S.K.F. roller-bearing spindles, with indicators showing amount of power consumed by each type. Exhibiting blade-bending device, showing advantage of hardened spindle blade as employed in S.K.F. roller-bearing spindle. Showing range of ball and roller bearings applicable to textile machinery generally. Attended by R. H. De Mott, H. A. Fonda, A. B. Studley, G. F. Langevin, B. F. Davis, K. W. Meklenburg, F. Zweifel.

John T. Slack Corp., Springfield, Vt. Booths 508, 509. Showing reworked wools, with emphasis on products in which reworked wools are used. Represented by E. A. Davis, Jr., A. N. Gorham, H. E. Dudley, and M. H. Robson.

W. R. C. Smith Publishing Co., Atlanta, Ga. Booth 88. Textile publishers.

Solvay Sales Corp., New York. Booth 428 E. Soda ash, caustic soda, snowflake crystals, textile soda, chlorine. Special display of Solvay Snowflake crystals, with emphasis on use of this product and Solvay textile soda in textile industry. A bleach-testing outfit, prepared by the Solvay Process Co. shown in detail. W. Allen, C. O. Kingsbury, L. G. Paul, C. L. Morse, R. H. Cole, R. B. Anthony, J. R. Heard in attendance.

Southern Textile Bulletin, Charlotte, N. C. Booth 524. Textile magazine publishers.

Spencer Lens Co., Buffalo, N. Y. Booth 529. Scientific optical apparatus and allied instruments. Featuring textile delineascopes (projection apparatus), sliding microtones, textile microscopes, vertical illuminators, chemical microscopes. C. H. Ash and C. W. Barton in attendance.

Stafford Co., Readville, Mass. Booths 105 to 110. Weaving machinery, showing shuttle-changing and bobbin changing automatic looms. Featuring automatic weaving of rayon and fine goods on shuttle-changing loom. Represented by G. P. Erhard, E. H. Erhard, C. W. Lillie.

Standard Oil Co. of New York, Boston, Mass. Booth 437. Complete line of textile lubricants and power-house lubricants. New Rex Brand Socony lubricants shown. A. A. Irish, R. T. Pihl, T. C. Porteous in attendance.

Steele Supply Co., Cambridge, Mass. Booth 510. Steele canvas baskets and trucks. Featuring original rigid frame with indestructible steel-strap bottom. Showing wire screening in various meshes, made by Newark Wire Cloth Co., Newark, N. J. Represented by A. E. Pratley, J. G. Loring, H. G. Pratley, A. R. Robinson.

Steel Heddle Mfg. Co., Philadelphia, Pa. Booth 151 A. Heddles, harness frames, reeds, reed wires, and drop wires. Featuring Draper loom running on fine-sley broadcloth. Represented by J. H. Hill, R. J. Freitag, J. J. Kaufmann.

Alfred Suter, New York. Booths 26, 32, 33. Laboratory testing apparatus. Emphasizing Amico motor-driven extractor and new cloth-feeding device for tentering machines manufactured by Krantz Soehne. Representatives, A. Suter, G. M. Stanton, R. Nigren, L. Koplin, and Mr. Duell.

C. J. Tagliabue Mfg. Co., Brooklyn, N. Y. Booth 164 AA, Dept. B. Indicating, recording, and controlling instruments. Showing large-sized diagram representing complete automatic slasher-room control, also smaller diagram showing piece-dyeing machine equipped with round-form recorder and temperature-time controller Represented by V. Wichum, R. S. Saunders, C. C. Stewart.

Taylor Instrument Cos., Rochester, N. Y. Booth 2. Showing temperature indicating, recording, and controlling devices. Featuring Tycos system of slasher control. F. S. Ward, E. J. Hanna, T. C. Hazard in attendance.

Texas Co., Boston, Mass. Booth 426. Petroleum lubricants, featuring products relating to textile industry. Exhibiting two cotton-spindle frames, one running with new Texaco spindle oil, the other with average spindle oil, showing power saved with new oil. Demonstrating new cotton spinning oils, wool and worsted spindle oils, and comb box and rub-apron oils. Represented by E. K. Herrick, H. C. Kelly, J. L. Draper, L. M. Smith, M. W. Wagstaff, H. Priestley, W. C. Rodgers, P. H. Littlefield and C. S. Hoelzle.

Textile American, Boston, Mass. Booth 104. Textile magazine publishers.

Textile Colorist, New York. Booth 422. Textile publishers.

Textile - Finishing Machinery Co., Providence, R. I. Booths 135, 136, 145, 146, Dept. B. Showing eight-color printing machine, vat-dyeing padder, six-cylinder back dryer, and one pair of textile electric guiders. C. F. Tillinghast, A. W. Anderson, T. E. Kane, J. Cook, and J. W. McKinley in attendance.

Textile Patent & Process Co., Boston, Mass. Booth 87A. K. Moller, C. A. Mumford, and L. A. Cotchett in charge.

TEXTILE WORLD, New York. Booths 62, 63. Textile publications, directories, catalogs, technical books, etc. Represented by members of its editorial and business staffs.

Timken Roller Bearing Co., Canton, O. Booth 92. Demonstrating operation of Timken bearings in textile-mill equipment. Represented by A. G. Norris, L. M. Klinedinst, J. A. Robinson.

Toledo Scale Co., Boston, Mass. Booths 74, 75. Exhibiting automatic scales and precision devices for textile industry. Displaying indicating mechanism under construction, showing the care taken in manufacturing. Featuring new yardage scale, cotton-lap scale, and counting scales. Represented by F. White, E. R. Batchelder, W. F. Bird, S. P. Painting, G. W. Trask, Ross L. Bell, J. D. Page, and E. W. Honen.

Tolhurst Machine Works, Inc., Troy, N. Y. Booths 340, 341, Dept. D. Line of hydro-extractors. Featuring center-slung centrifugal with flexible-link suspension, interlocking safety guards, monel-metal basket. Represented by D. A. Ferguson, J. C. Westaway, C. W. Anderson, J. McKeon, W. T. Powers, F. H. White, W. J. Westaway.

Lewis E. Tracy Co., Boston, Mass. Booths 39, 40. Hallowell steel benches, Hallowell steel trucks, and bond truck casters. Featuring new Gilmer V-belt drives and barium bearing metals demonstrated by a running test. Represented by E. W. Capen, C. B. Bradford, G. H. Kendall, R. E. Abbott.

U. S. Ring Traveler Co., Providence, R. I. Booth 89. Display unit in operation, showing new features and developments of travelers and rings. New products include the following Bowen patents: Bevel-edge traveler, offset vertical traveler for all fibers to be spun or twisted, high-speed flange ring, concave vertical ring for lubricant application, ring shields for silk and rayon. A. M. Bowen, C. W. Smith, W. P. Vaughan, G. H. H. Gilligan in charge.

United States Testing Co., Inc., New York. Booth 7. Textile-testing service explained by posters and charts and also by pamphlets showing how to figure clearances on raw and thrown silk. Displaying new wearing tester for fabrics and proposed wearing tester for carpets. New U. S. Testing Co. handbook on hosiery testing, just published, on sale. Represented by H. E. Bishop, J. A. Woodhead, and A. E. Davieau.

Universal Winding Co., Boston, Mass. Booths 111 to 119, inc. Textile winding machines. Featuring new method of warping rayon and new products, including No. 40 winding machine without cams or reciprocating thread guide for winding yarn for high-speed warping; No. 45 winding machine for heavy cord; and magazine creel for handling rayon directly from cones to warp beam. Represented by R. L. Chisholm, A. J. Harvey, F. H. Bishop, H. Armitage, W. Warren, and E. A. De Wolfe.

Veeder-Root, Inc., Hartford, Conn. Booth 149. General line of automatic counters for all purposes. Pick counters of all types featured, including new

Chester I. Campbell, Director, International Textile Exposition

Veeder-Root "Tanner" type pick counter. A. E. Kallinich, W. R. Merz, and others in attendance.

Viscose Co., New York. Booth 420. Crown-brand rayon yarn. Showing rayon merchandise and various types of Viscose Co.'s rayon yarn.

Wardwell Braiding Machine Co., Central Falls, R. I. Booth 84. Several braiding machines shown, a particular feature being two 16-carrier and one 24-carrier high-speed braiders arranged for the production of paper-covered wire, generally known as "Romex." New development is 24-carrier cable braider with taping attachment. K. F. Birchmeier and T. Miller in attendance.

Washburn, New Bedford, Mass. Booths 11, 12. Exhibiting "Perfection" shield rolls; "Washburn" wood top rolls; "Kore-Lokt" pin boards; "Hi-Speed" warper beams; "Economy" beams; gudgeon rolls; trucks; etc. Demonstration of long-draft spinning with Washburn wood top rolls featured. Represented by F. C. Washburn and F. Wilkinson.

W. J. Westaway Co., Ltd., Hamilton, Ontario; Montreal, Quebec; Canada. Booths 301, 302. W. J. Westaway, W. H. Norton, J. B. Cudlip in charge.

Philadelphia Grease Mfg. Co., Philadelphia, Pa. Booth 303. Lubricating greases and grease cups. Featuring a grease density suitable for every purpose. Represented by H. A. Smith and W. E. Munday.

Potter Press, Waltham, Mass. Booth 446. Salesmen's order books, factory and office forms, purchase-order books, and manifold work. Featuring improved type of duplicate order book. P. K. Wheeler and Miss DeCoste present.

Premier Mill Corp., Linder & Co., Boston, Mass., New England Agents. Booths 362, 363. Premier colloid mill for preparing emulsions and printing pastes. Improved textile emulsions shown. S. K. Nester, J. F. Linder, Jr., A. A. Claflin, R. Beals, H. C. Perry in attendance.

Westinghouse Electric & Mfg. Co., East Pittsburgh, Pa. Booths 28, 34. Showing loom and spinning-frame motors, cog-belt drive demonstration set, complete line of motor-starting and control equipment, industrial lighting, panelboards, Micarta, Rectox chargers, and Micarta and metal gears. Booth in charge of G. D. Bowne.

Whitin Machine Works, Whitinsville, Mass. Booths 47 to 49; 53 to 55; 59 to 61; 65 to 67. Exhibiting two-beater one-process picker; three-cylinder set of new model L or E. V. Bates type of cards, consisting of Whitin automatic feeder, Bates breast, first cylinder (60 in. wide), conveyor (60 in. wide). Whitin Scotch intermediate feed, Bates double finishers in tandem (60 in. wide), 20-in diameter cylinders, and Whitin tape condenser; model E comber, Nasmith type, equipped with new Barker flexible top comb and auxiliary nipper knife for using heavier lap, improving combing, and increasing production; model D-3 comber; large-package, 24-spindle, model F, 5-in. gage, tape-drive spinning frame; 36-spindle, model F, 4-in. gage, tape-drive spinning frame with Casablancas system of long draft, swiveling self-contained panels, spiral-cut jack gear, steel back bar, self-contained traverse motion, self-balanced thread board, and improved spindle clutch, with extra-fine steel rolls and rings; 36-spindle dry twister, 3½-in. gage, model B, equipped with fancy-yarn attachment and two-ply stop motion; new model D wool spinning frame, 32 spindles, 4½-in. gage, equipped with reverse-twist attachment; worsted twister, 40 spindles, 3½-in. gage; worsted spinning frame, 40 spindles, 3½-in. gage. Represented by E. K. Swift, L. M. Keeler, J. W. Lasell, Messrs. McGinniss, Mills, Rooney, Hartley, Nelson, Hague, Barker, Bolton, Hyde, Wild, Brown, Cooper, Truslow, Bentley, and others.

Whitney Mfg. Co., Hartford, Conn. Booth 127 B. Displaying power board, showing Whitney silent- and roller-chain drives in operation with oil-retaining casings; working display of Whitney reversible-type chain as applied on a horse-head traverse drive on roving frame; Whitney reversible-type chain as used on reverse drive of wool-spinning frame. G. C. Steil, R. A. Glass, and R. J. Howison in attendance.

Wickwire Spencer Steel Co., New York, N. Y. Booth 427. Featuring comparison in toughness and hardness of different kinds of wire used in card clothing, as shown by unique machine. Represented by L. R. Arnold, C. E. Welch, J. R. Worsfold.

OVERSEERS' ROUND-TABLE

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Be Human in Your Relation to the Workers and Avoid Labor Turnover

BEFORE EMPLOYING help, explain their possible duties, stressing the most important parts connected with the work. Most labor turnover today is among new employes, who get discouraged after a short period, and drift away.

Have their immediate superior take an interest in them, inquiring daily about their progress and whether the work appeals. Discharging employes should be done as a last resort and this only when they have been tried in various jobs and found wanting in each.

Inquiring in the financial condition and sometimes giving them a little help, will make a loyal and faithful worker. Their physical condition should also be watched.

Never censor an employe before others as this has a tendency to create an antagonistic spirit, but call them aside, and discuss it in a friendly manner. Treat help as you yourself expect to be treated by your superior and you will find them willing and loyal in every respect and those that do not respond to this treatment are better dispensed with. F. W. WARNER

Avoiding Constant Changes in Help

IF A CHAIN is no stronger than its weakest link then an organization employing labor is no stronger than that labor.

Turnover of help must be kept at a minimum or the usefulness and efficiency of labor is destroyed. Application of remedies varies with conditions and location, but it will be found that generally there exist two types of labor, namely, the floating element, here today and gone tomorrow, and those who leave because of some minor dissatisfaction or imaginary reason.

The floating help can be eliminated through a united effort to employ home folks. In the other case, removal of the cause for leaving is the remedy. To do this, impress upon department heads that kindness is better than abrupt harshness. They should display no favoritism, listen courteously to complaints even if not in a position to make adjustment, deal fairly in all cases and strive to create a pleasant atmosphere and let employes feel that they have their personal interest at heart and there will be a natural response.

Here again, a daily and honest application of the Golden Rule, embracing the highest to the lowest, will in a great measure increase the efficiency and practically remove the unnecessary turnover of labor. S. W. ARMITAGE

Don't Process Defective Material

IN A TEXTILE plant being operated by an organization made up of a real honest-to-goodness superintendent and capable overseers well versed in their particular line it would be impossible to pass the buck without being caught flat footed and ridiculed.

There are a few defects on cloth over which there might be a question of where the imperfections were caused; stained and torn cloth for example. The buck passing in such cases can be stopped by the superintendent holding the overseer of the department in which the imperfections were found responsible, if he had started to process the goods. If the goods are not in proper condition the overseer should refuse to start processing the goods and should protect himself by showing up the defects.

Once an overseer or one of the operatives is taught to realize that if they accept imperfect goods from another department or operative they must assume the responsibility they will be on the alert for their own self protection, thereby stopping trouble before it gets started. W. J. MURRAY

Pete Advocates the Ri

"WELL, we start another meeting with another problem," Superintendent Chase said, as the overseers settled expectantly in their chairs. "The problem hasn't arisen in this mill yet, but I was talking with another superintendent the other day and he mentioned it, so I suppose we might as well be prepared ahead of time.

"What happened in the other plant was that one of the workers thought he wasn't being fairly treated by his overseer and wanted to speak to the super. This particular super wouldn't see him, but I've been wondering if, after all, it's the best thing to do, and I'd like your opinions. What do you fellows think of it?"

"I'm beginning to think I should have run for Congress, the way I talk every chance I get nowadays," old Bill grumbled, "but you know, I sort of like it." He grinned, and then continued. "At any rate I can't see any reason for the super seeing any of the workers. We overseers are supposed to run our departments and it would certainly ruin discipline if the super was always listening to everyone who came running to him with a tale of woe."

"I don't see it quite the same as Bill does," Pete spoke up. "I know I haven't had as much experience, but I think it would help the spirit of the organization if everyone knew that he could appeal to someone in case of trouble. In a law court every man has the right to appeal a decision and I think it is only fair to have the same principle in business. We all make mistakes and I think that I would be fair enough not to take it out on anyone who went over my head. No one would go to the super without a real cause, which would be very

Social Meetings Beneficial

IN REGARD TO your problem of overseers passing the buck. This is one of the greatest evils that any overseer can be guilty of, yet it is often done, particularly where there is lack of cooperation among the overseers. To bring about the necessary cooperation, I suggest that the supt. and all the overseers meet at least once a month, after working hours, at some convenient place away from the mill, so they won't have the idea they are coming to work. Make

Right of Appeal

seldom, but I think the idea would make some folks feel as though they were surely getting a square deal."

"Good," Chase said, "there are two sides of the problem well presented. What is more, I am particularly interested, because if the workers are allowed to come to me on special occasions, in all fairness I should allow you overseers to go over my head if you had a kick. However, in case some of you might be hesitant about speaking on the latter side of the question, when we talk it over next time we'll confine ourselves to the problem of your workers talking with me.

"Let's all think it over and," he smiled, "from what Bill and Pete said we ought to have a good old-fashioned debate."

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DO *you* think it wise to allow a man to go over the head of his immediate superior?

Overseers and others are invited to discuss this and other questions brought up in the super's talks. Letters accepted and published will be paid for without regard to length. Brevity is desirable.

CENTRAL PANEL in this department offers a new subject for discussion. It is surrounded by readers' comments on previously introduced problems.

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the meeting a social and business affair and pass around some good cigars. During the evening each overseer would be asked to state what was giving him his greatest trouble in regard to quality and production. This will give each overseer a chance to know the others problem, and the superintendent a chance to have the thing straightened out before it goes too far. SILENT PARTNER

What Caused the Trouble Not Who Caused It

THE WRITER was quite pleased to read about the new department, "The Overseers' Round-table." Feel certain it will be productive of much constructive controversy.

Passing the buck is the lazy man's weapon, often employed just because he is lazy enough to be indifferent; whereas, a few minutes genuine deep thinking, followed by a determined effort to locate the trouble in his own department would, in many cases, save months of aimless groping and avoid bad blood between departments, besides saving the goods and the mill's money.

The best cure-all for passing-the-buck, in the writer's estimation, is a concerted effort by all hands to find out *what* is causing the trouble and not *who*. Every man in the works has been given to understand that he would be held blameless if he will only discover what does it, even if it is in his department, and has had it impressed on his mind that no one cares to know who did it.

No arguments should be permitted where the personal pronouns are used. Personal slurs, innuendoes, and incriminations lead nowhere and discover nothing but ill feeling and should be taboo. DAVID WELSH,
Overseer Cloth Finishing
Mayo Woolen Mills Co.

Super Shouldn't Pass Buck Either

WHAT A BLESSING it would be if all the supers were square shooters as Mr. Chase is admitted to be. Then they themselves would not pass the buck in the first place as only too many of them do.

No one can expect all supers to know every kink in every department in a mill, but if he does he is worth his weight in gold. If his knowledge and experience is limited in one or more departments he is a wise man to consult the man in charge of that department before he gives any drastic orders for changes, systems, etc. If he issues orders against the protests of the more experienced man and things go wrong he should be man enough to shoulder all responsibility.

I know that all overseers are not infallible, but take the case of a super who gives some drastic orders which the carder and spinner know very well are impossible to carry out. Then he attempts to come back at the carder or spinner when things go wrong. Is it fair?

A super must be fair to have his overseers fair. I would say to all supers and overseers, if you are sick take the medicine yourself and don't try and pass it on to others. Be a man. OVERSEER

Keep in Touch With Adjacent Departments

I AM VERY much interested in the "Overseers' Round Table," being an overseer of 25 years' experience. I am glad to find such good articles in TEXTILE WORLD and, while I am no magazine writer, I am ready to battle the subject out, so I am stating a few of my views.

Buck-passing is the lazy excuse of the alibi-man. Troubles and defects will be overcome quickly by having each overseer keep in touch with the department that feeds his department and also the one which depends on his product. They should look into the complaints of the super together. At the Round Table they are too polite, so they should fight it out in their rooms.

I have yet to find the super that likes to find out and settle faults in the overseer's department. An overseer should go ahead and do things himself and tell the super afterwards. Don't give the impression that you are going over his head, but show him that you are not afraid of your own judgment.

The suggestion of a group discussion will work only for a short time, for too many overseers will keep their troubles to be settled then, and it is a bad example for the younger overseers, as it will not teach them to have confidence in themselves. O. J. DOSTIE.

Questions and Answers

We undertake to answer, free of charge, to the best of our ability, questions pertaining to textile matters received from any regular subscriber to TEXTILE WORLD.

Inquiries should give the fullest information and data possible. In the case of damage to material, a sample should be sent. We do not undertake routine analysis of woven or knitted fabric construction, or investigation involving unusual expense.

All inquiries must be accompanied by the name of the person inquiring, not for publication, but as evidence of good faith. The identity of those seeking information on technical subjects will not be disclosed.

Letters expressing opinions or voicing criticism will be signed by the correspondent's name unless the letter itself contains a request that the name be withheld.—EDITOR.

Tear Drops in Flat Crepe

Technical Editor:

We are enclosing sample of light-blue flat crepe, the construction of which is 3/50, 2-ply, 42¼ in. wide. It is 41 in. off the loom, and when finished is 39 in. wide. The filling is two-thread, 13/15 denier, 65-70 turns per inch, two right and two left, 108 picks. We are meeting great difficulties in eliminating the "tear drops" or "rain drops" which run throughout some of the pieces. You will notice the "tear-drop" effect better when the cloth is held below the level of the eye. We shall appreciate any information you can give us as to how to eliminate these effects. (7103)

We find that the defect in the flat crepe consists of warp ends showing a slight slackness, which gives these ends a trifle longer flotation over the picks. This condition gives them the ability to reflect the light more effectively. In other words, the piece is overhit. A little more tension on the warps will take up the present slackness of the ends and will eliminate this condition.

One should consider that there are 8,100 binding points per square inch, which involves a considerable amount of friction between warp and filling. To achieve a perfect picture, it is necessary to have an absolutely tight warp, thereby producing smooth surfaces for the filling to slide over when it is being beaten up by the reed. The slightest slackness will permit the filling with its high twist to catch on the warp thread, pushing the respective ends while loosening up others.

A condition similar to that shown in the sample can be caused by improper setting of the loom. Particularly when employing a shed which closes too early, the warp ends are not permitted to settle sufficiently upon the picks, causing the prevalent streakiness. Again, however, the timing of the loom is controlled by the loom speed. For instance, if the speed is 140 to 145 picks per minute, the shed should be closed about ⅝ of in inch before the beat up. If the speed is higher, the loom is set later accordingly.

Of course, the high pickage has a lot to do with the appearance of the finished fabric. We should prefer a 74-pick weave with three-thread, 13/15 deniers, 60/65 turns, since the difference in deniers per square inch is only slight and the increased production due to the lower amount of picks would more than equalize the variation in deniers. Of course, if the high pickage must be maintained, we can only refer to our previous remarks.

Another important feature to observe is the uniform elevation of all shafts. If one or more shafts is raised higher than the others, the respective ends will naturally be woven tighter; this in turn makes the other ends appear loose. A streakiness in this case is bound to appear, as a uniform tension of all threads is of the utmost importance to create a smooth and undisturbed face.

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Heavy Places Occurring Regularly in Cotton Yarn

Technical Editor:

We appreciate your kindness in connection with our recent question on the unevenness in our yarns [TEXTILE WORLD, *Feb. 22, p. 47*] *and are taking the liberty of sending you today boards of yarn representing this mistake. We are also sending you the rolls taken from the spindles on which this yarn was run.*

Your idea regarding the roller setting does not hold true to this instance, however; for, if we change the roll and take a good new soft roll, we get a perfect yarn. We would now like to get your idea as to what is wrong with the roll itself which will cause this unevenness. It has been proved here that the roving is all right from which this yarn was spun. It is only a matter of the construction of the roll itself.

We have had this trouble with our rolls twice during the last year and we are of the opinion that the rolls are covered too hard, thus causing unevenness and vibration, which results in this uneven yarn. (7130)

Study of the two boards from roll No. 2 and the two from roll No. 3 showed that the defects (unevenness in yarn) were more pronounced from the right-hand bosses. A regular machinist's micrometer was used to measure the bosses of the rolls, but it was found unsatisfactory. The only point established was that there was no great difference in the two bosses of any one roll. Rolls Nos. 1 and 2 were about 1.08 in. in diameter, while roll No. 3 was about 1.09 in. in diameter.

A special micrometer was then set up to test the variations in the surfaces of the rolls. The roll ends were carefully cleaned and set up in a fine grinder. The gage was arranged to touch the surface of the roll with but little pressure. The gage indicated the changes in the radius of the roll, as it was turned slowly by hand. The extreme amounts of variation on the scale, in thousandths of an inch for one complete turn were as follows:

Roll Number	*Right Boss*	*Left Boss*
1	7	2½
2	4	2
3	12	2½

Variations of 0.002 in. do not seem excessive, but variations of 0.007 and 0.012 in. apparently are high. It is possible to feel the variations in the right boss of roll No. 3. These variations may be the cause of the uneven yarn.

Another thing apparent in these rolls is that the traverse is very short. It is likely to give a longer roll life if more of the boss is used. Using such a short traverse has also produced a wide channel in some places. This tends to reduce the pressure on the fibers, which may be light enough to reduce the drawing action, especially

if the channeling is not uniform all the way around. This is also a likely cause of uneven yarns such as these.

The appearance of the rolls leads to the comment that rolls not oiled as frequently as necessary will also give uneven drawing.

Observation of the machines in operation is the only way to tell which of these causes is responsible for the trouble mentioned.

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Scoured Wool Develops Odor

Technical Editor:

We are having trouble with scoured pulled wools developing an odor after they are made into blankets. The cloth is washed, sulfur bleached, rinsed with cold water, dried, and napped. A smell develops about 24 hours after napping. The white block also turns a dull white. We can take a piece of the wool and merely wet it out and bleach it, and get a beautiful white, but in the cloth we cannot get the results. We are sending you a sample of the cloth as well as two samples of wool which went into this cloth. Kindly advise what your opinion is. (7087)

An examination of the cloth and wool submitted showed no reason why the cloth should not take a good bleach. Sulfur bleaching is a reducing treatment; and when a sulfur-bleached fabric is exposed to the air, the coloring matter which has been reduced by the fumes of burning sulfur is oxidized and the wool gradually resumes its original cast. The sulfur bleach is not permanent, but by careful manipulation, satisfactory results should be obtained.

The sulfur bleach imparts to the wool a characteristic odor which cannot be mistaken. Rancid odors may develop as follows: There is always a certain amount of grease or oil in the wool, such as natural grease or conditioning oils placed therein by the manufacturer to enhance its spinning and combing qualities. If these greases or oils are not completely emulsified and rinsed from the garment, they will in time develop an objectionable odor. Again, if an improper soap is used in scouring and not completely rinsed out, it may cause odors. Sulfur fumes being acid in nature react with the fats of the soap or with the conditioning oil (not scoured out) forming fatty acids which develop very objectionable odors in an extremely short period of time. This condition also gives the wool a dingy appearance.

We would suggest a thorough scouring with an olive- or red-oil product, and a thorough rinsing with warm water before bleaching.

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Soaking Hosiery Tram

Technical Editor:

In your Feb. 15 issue we read your answer on a question of softening hard silk, size 20/22 single. What soaking would you suggest for full-fashioned hosiery tram, size 13/15, in order that it will retain the moisture so that when the silk is ready for knitting there will be no trouble with harshness? We are using a formula which may go along for two or three months without any trouble, when suddenly we get complaints of harshness. (7132)

THOUSANDS of inquiries are handled annually by the Technical Editors. In order that as many readers as possible may benefit from this service, we select problems of general interest for publication each week.

The information given is too meager to analyze your trouble and treat it specifically; and therefore this reply must deal in generalities. The major conditions that cause harshness are the nature of the silk, improper soaking emulsions, air conditions, and faulty conditioning methods. No one formula will render all raw silk soft and pliable, as hard-nature silk often requires twice the softening material that soft nature does. The softening effect is produced by water, soap, and carbonated alkali. These must be proportioned according to the nature of the silk and softness desired. Neatsfoot and olive oil have no softening effect on the silk—they lubricate only.

If proprietary oils are used in soaking, one can only increase the amount; or, if that does not give the desired results, other preparations are necessary. When using sulfonated oils, the water and temperature, together with the time the silk is soaked, regulate the softness. The sulfonated oils act only as a lubricant.

The temperatures given in the Feb. 15 issue (viz., 110° to 120° F.) for hard 20/22 silk before weaving are entirely too high for hosiery tram, as soft Japan silk sometimes melts at 95° F. when soaked over night. A safe temperature is 85° F. Exceptionally hard lots will be improved by using 90° or 95° F. No soaking emulsion will prevent the silk losing moisture, as that is entirely controlled by the air conditions. The function of soaking is to cause the thread to absorb water more readily and uniformly. Conditioning boxes are built and used to retain the moisture in the thread.

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Weighting Souple with Sumac

Technical Editor:

One of our friends is looking for some information as to the method employed for weighting souple with sumac. At the present time he is wetting out his tram at 120° F. in a 50% soap solution. He washes the silk, and then runs through acid and proceeds to dye with 100% sumac. After dyeing, and when near the shade he requires, he gives the silk a lukewarm ½-oz. silk sizing, and then re-dyes with another 50% sumac dyebath, proceeding to finish after this last operation. He believes it possible to get a 22-oz. weight, but so far is unable to secure the necessary results. It is possible to secure any such results? If so, what is the usual procedure? (7115)

As no dyestuffs are mentioned, it is not quite clear from the question whether the dyer is trying to obtain a black or some other shade. For this reason we are giving formulas for both colors and black.

The silk should be stuck up with rather heavy handfuls, as a short liquor is necessary to obtain the desired

weighting. The dying should be done in what is called a "water liquor"; no soap is used at any time. On account of the time required in the dyeing and weighting, the use of soap would tend to soften the gum, and this would mean a decided loss in weight. The object is to retain all the gum possible and at the same time have the silk thread soft. For light shades the best quality of either French or British stainless sumac extract or China nut-gall extract is used. For dark shades, the domestic sumac extract may be used.

The dye liquor is made up with water, sumac extract, and sulfuric acid, using 400% sumac extract based on the weight of the gum silk to be dyed. Add enough sulfuric acid to make the water taste sharply acid—one-half pint of sulfuric acid should be sufficient for a 12-ft. box. First add the acid to the water and then the sumac extract. Enter the silk warm and give ten turns. Raise the temperature to 150°F. and give ten more turns. Then the necessary dyestuffs should be added to obtain the shades desired. Patent Blue A, Archil Extract, and Azo Yellow A5W are generally used. According to the tone of yellow required, one must hold back on the yellow, as the sumac extract will sometimes supply all the yellow color required. The silk is worked in the bath until the boil is reached. After the second boil, the shade should be very close to the sample except for the yellow. If the shade needs yellow at the boil, but is otherwise good, do not add any more yellow dyestuff, but enter the silk again without steam and work slowly; as the temperature drops, the silk will pick up both weight and yellow from the dyebath. In order to obtain a full 20/22-oz. weight the dyebath must be allowed to cool down to 90°F. A return of 20/22-oz. weight is the limit with sumac weighting and cannot be obtained on very light shades.

After the shade is obtained and the bath cooled down to about 90°F. the silk should be removed to another box for rinsing and finishing and the old dye liquor saved for subsequent dye lots. In fact an old "water liquor" is better than a new one. For subsequent lots, using the old liquor, the bath may be strengthened by the addition of half the acid and half the amount of sumac extract. During the whole of the dyeing operation, it is necessary to watch the souple thread very carefully. The experienced dyer will know when the thread is soft enough. A skein is removed from the batch, rinsed, and extracted; then a small portion of the skein is dried. A few threads of the dried portion are pulled through the finger nails of the thumb and forefinger. If properly treated, the thread should be soft and limp with not much luster. If the thread is still stiff and hard, the boiling must be repeated. Care must be taken not to get the thread too soft, as this will cause trouble in the winding.

The silk should be well washed in warm water—at about 90°F.—and then the finishing compound added. Ordinarily the finishing bath is made up with olive-oil emulsion, acetic acid, and 1% of glue. The silk should be wrung out of the finishing bath by hand, and then the lot extracted and hung up to dry. The final operation comes after the silk is dried, when the silk must be carefully shaken out and finished on the pin in the dry room.

The silk is wet out with muriatic acid—enough to taste sharply sour—given nine turns at 130°F. About one quart of muriatic acid is sufficient for a 3-ft. box. After the acid bath give two cold waters, three turns each. Make up a water liquor containing 300% or three pounds to the pound, of black dye extract, bring to the boil, and set in, giving ten turns; lay up and boil up again, set in, and give another ten turns. Take out a skein, extract it, and dry a small portion. Some hard gums often require three boils before the silk thread is soft enough. When the thread is soft enough, re-enter the silk and give a turn once every hour for eight hours. By this time the liquor should have cooled down to around 90°F. The silk should then be well washed with two warm waters and two cold waters, giving five turns in each water. Then enter the silk into a black-iron liquor at 4°Bé. (cold) for three hours. The black-iron bath is a standing liquor and should be saved. Wring out the silk well by hand from this liquor. Shake out on the arm and stick up again.

It is then necessary to let the silk air for several hours before the next operation. One method is to let the silk hang between two boxes for two or three hours. Another method is to lay the hanks of silk on the sticks, three thick and four rolls, cover well with a wool blanket, and let stand over night. The method of airing between the boxes with plenty of cold air is the safer method.

After the silk has aired, wash four minutes on the washing machine (or give three cold waters, three turns each) to wash out the black-iron liquor, and extract lightly. Stick up again and enter into a gambier cover liquor. This is made up with 100% gambier extract. Start at 120°F. and give five turns; then give one turn every fifteen minutes for one hour, taking the time from the end of the first five turns. Then wash on the machine for four minutes, or give three or four cold waters, to remove excess of gambier liquor. Wash the stick also.

Make up a dye liquor of 40% olive-oil soap and 25% hematine paste. Start at 120°F. and give five turns. Lay up, raise the temperature to 155°F., give five more turns, and take sample. Generally seven or eight turns at 155°F. will be sufficient. Do not go above 155°F. Then give two or three warm waters (at 100°F.) to remove the soap.

The finishing bath should contain olive-oil emulsion, acetic acid, and 1% of glue. The glue is covered with cold water the night before it is wanted for use, then boiled up the next morning, when it will go into solution easily. The finishing bath should be hand warm (about 90°F.). The acid should be added first then the glue solution, and last the olive-oil emulsion. If finished in the dyebox, the silk should be wrung out of the finishing bath by hand; if finished in the machine, the finishing liquor should be dropped. Extract and dry at moderate heat. The silk should be well pinned in the dry room as the last operation. For black this method should return a full 22-oz. weight.

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Relation of Reed Width to Beam Width

Technical Editor:

I wish to thank you for your reply to my inquiry which you published on page 37 of your April 19 issue. Your answers are clear and satisfactory. In regard to relation of beam width to reed width, I wish to explain that the spread of the yarn on the loom beam in my letter should have been 38 in. in both cases, and not 48 in. in one case and 38 in. in the other. This was the cause of your questioning my meaning. The same loom beam of yarn was used. In the first reeding the spread of yarn in the reed and the spread on the loom beam were equal. Another method of reeding was used which de-

creased the spread in the reed 8 in. The spread of the yarn on the loom beam remained the same. Loom beams with adjustable flanges were used. Your reply covers this question and I merely make the correction to clear up any confusion. (7120)

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Spot on Full-Fashioned Stocking

Technical Editor:

We are sending you under separate cover a full-fashioned stocking on which you will find a spot where a piece of paper is pinned. These spots appear on the goods only when they are allowed to lie longer than a day after dyeing, but do not appear on all of the stockings; also these spots do not appear until after boarding. We shall appreciate your opinion as to their cause. If more detailed information is desired, we shall be glad to furnish it. (7124)

This trouble is purely an oil spot of some description and clearly indicates that the stocking has been stained after the goods have been dyed. We mention as a most probable cause oil of some description in the dyebath. This can come from oily goods sent down from the knitting room, from bearings on the dyeing machine, or from oils which may be found in some boiling-out and finishing compounded oils now on the market.

We advise you to check up on your dyeing machine and see if you do not find oil of some description floating on the final wash water in the dyeing operation. This may be found in the shape of clear grease eyes floating on the top of bath, or possibly in the shape of small lime-soap curds, which are precipitated on the goods when the final wash water is drawn off. The probability of this is borne out by the fact that the spot is purely a surface stain and does not show up at all on the inside of stocking. The stain may also come from contact with some necessarily oiled parts of the boarding machine. We feel quite certain that a careful checking of each operation from dyeing to boarding will locate the trouble.

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Shortening Machine-Shop Calculations

Technical Editor:

While calculating a rather long table of surface speeds of different-sized milling cutters, the length of time required to make each separate calculation seemed to me to be excessive. With that idea in mind, the short methods or formula given herewith were finally evolved.

In finding the peripheral speed at which a cutter or piece of work in the lathe is traveling, it is usual first to multiply the diameter by 3.1416 to get the circumference, and then to multiply by the revolutions per minute and divide the result by 12 to get the speed in feet per minute.

To shorten the calculation and get the same result, proceed as follows: Multiply the diameter of the piece in inches by the revolutions per minute and then multiply by the constant .2618; the result is the surface speed in feet per minute.

Example: $\frac{1}{2}$-in. cutter at 300 r.p.m. = X ft. per minute. $.50 \times 300 \times .2618 = 39.27$ ft. per min.

To find the number of revolutions per minute at which to run a piece in order to get a required feet-per-minute speed at the cut, the following method is usual: Multiply the required feet per minute by 12, to reduce to inches. Then divide by the circumference of the piece or cutter, which has been obtained by multiplying the diameter by 3.1416. This will give required revolutions per minute.

A shorter way to obtain the same result is as follows: Divide the feet per minute by the diameter of the piece in inches, and divide the result by the constant .2618.

Example: How many revolutions per minute must a $\frac{1}{4}$-in. cutter be run to obtain a surface speed of sixty feet per minute?

$$\frac{60}{4} \div .2618 = 57.2 \text{ r.p.m.}$$

A still shorter way to get an approximate result is to use $\frac{1}{4}$ instead of .2618, as the error is only about 4% and the result is near enough for ordinary work.

The second formula would show example as follows:

$$\frac{60}{4} \div \frac{1}{4} \text{ (or multiply by 4)} = 60 \text{ r.p.m.}$$

The first formula would be:

.50 times 300 ÷ 4 (or multiply by $\frac{1}{4}$) = 37.5 ft. per min.

With the present-day high-speed cutters and high-speed steel lathe tools, it is very necessary to have the correct speed in order to work to the best efficiency. These short methods of calculating should materially shorten the time spent in figuring by a number of busy mechanics and executives. P. S. HUNTLEY.

◆

Silk-Rayon Fabric Is Streaky

Technical Editor:

We are sending you some 150-denier rayon on cops which is making streaks in the cloth, as you will see on the sample. Kindly let us know what you find to be the cause of the streaks. (7129)

We have examined the tubes of rayon, together with the swatch of cloth showing streaks. The swatch has a cloth count of 80x38. The warp is about 23/25-denier natural silk and the filling is 150-denier rayon. It would be almost impossible to prevent the natural silk warp from slipping on the smooth rayon filling. Even if the cloth came from the loom with an even surface, the handling of the cloth from the loom to the cloth room and finisher would surely disturb the set of the natural silk in the warp.

We can offer only one suggestion that may help. The warp ends should be drawn in the reed one end per dent, using a silk reed with about 75 dents per inch of reed. Reeded in this manner the warp ends would have less tendency to become displaced, but no matter how such a cloth is reeded we could not guarantee that the natural silk warp would stay in the position in which it is woven into cloth.

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Cooling and Conditioning Serges

Technical Editor:

We are contemplating installing equipment for finishing serge. Do you consider that a cooling and conditioning machine should be included in this installation? (7171)

We are believers in the value of a cooling and conditioning machine for this and other purposes. It should prove of real help in obtaining a satisfactory handle and appearance in your finished goods. Many prominent mills are using this type of machine for finishing worsteds, woolens, cottons, silks, and knit goods.

NEWS about MEN

A. W. WHITEHURST is now president and C. L. RUDESILL, secretary and treasurer of the Marshall (N. C.) Mill & Power Co.

JOHN BARNES, president of the Blood Knitting Co., Amsterdam, N. Y., has been appointed to represent that city at the annual meeting of the U. S. Chamber of Commerce at Washington, early in May.

E. FRANK LEWIS, head of the wool scouring firm of the same name, located in Lawrence, Mass., recently celebrated his 87th birthday. Following an annual custom of many years standing, the employes of the Lewis plant sent floral tributes.

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Executives of the Exposition Mills, Atlanta, Ga., on April 15, were hosts at a dinner given in honor of GEORGE HARRIS, retiring president of the firm. The dinner was given at the Capital City Club, and a set of silver goblets was presented to Mr. Harris by the board members as a token of esteem and appreciation for his years of service.

Gov. Gardner of N. C, has appointed the following textile manufacturers to attend the Southeastern Governor's Conference at Asheville, N. C., April 26: B. B. GOSSETT, Charlotte; A. M. DIXON, Gastonia; C. A. CANNON, Kannapolis; THURMOND CHATHAM, Winston-Salem; A. W. MCLEAN, Lumberton; BERNARD CONE, Greensboro; J. H. SEPARK, Gastonia; AGNEW BAHNSON, Winston-Salem.

PAUL BERGOLD, of Ausburg, Germany, who has been in the United States for the last seven months studying cotton production and the textile industry, is in South Carolina and will go to Gastonia and make extensive research study. His father is Ludwig Bergold, president of the South German Textile Association and owner of a textile plant at Ausburg, Germany.

DR. ALEXANDER SZCZPANSKI, of Chicago, Polish consul general to the United States, has been visting some of the larger cotton markets in Texas, following a visit to New Orleans, with a view to establishing close relations between the cotton producers of that State and the textile manufacturers of Poland.

GORDON SCOTT, youngest son of the late Samuel F. Scott, founder of S. F. Scott & Sons, Inc., operator of the Elmdale Mill, Uxbridge, Mass., has been given an interest in the business.

LORD WILLINGDON, Gov.-General of Canada, and Lady Willingdon recently paid an inspection visit to the plant of the B. C. Worsted Mills at Victoria, B. C., and that of the Jantzen Knitting Mills of Canada, Ltd., at Vancouver, B. C.

GEORGE A. BIGELOW, president of the Hopeville Mills, Worcester, Mass., and family, returned this week from Miami Beach, Fla., where they passed the winter.

BARON VON PRITTWITZ, German ambassador at Washington, was in Asheville, N. C., last week. He made an official visit to the American Bemberg and American Glanzstoff Corporations at Elizabethton, Tenn.

Stockholders of the Durham (N. C.) Hosiery Mills, Inc., meeting April 15 in annual session re-elected the board of directors and the board in turn re-elected the present officers of the company. Officers re-elected are D. P. CAREY, president; A. H. CARR, vice-president and treasurer; W. F. CARR, vice-president and secretary; J. L. DAVIS, auditor and assistant treasurer. A. M. KENNEDY, of the New York office, also was elected an assistant treasurer. Directors in addition to the officers are: B. B. ADAMS, of Four Oaks; GEORGE WATTS HILL, JOHN SPRUNT HILL, W. J. HOLLOWAY, and W. W. SLEDGE, all of Durham, and MEADE H. WILLIS, of Winston-Salem.

GEORGE M. WRIGHT, president of the Republic Cotton Mills, Great Falls, S. C., delivered an address at the Chester (S. C.) Rotary Club last week, on "Is Rotary Worth What It is Costing Me."

FRANCIS T. MAXWELL, president of the Hockanum Mills Co., Rockville, Conn., has been re-elected a director of the Rutland Railroad Co.

WILLIAM M. BUTLER, president of the Butler mill of the Associated Textile Companies, New Bedford, Mass., will speak on "Industry in Massachusetts" before the Kiwanis Club of Worcester, Mass., on April 25.

John Guernsey, who is director of the retail section of the Bureau of the Census. He has specialized on the economics of retailing.

JOHN F. TINSLEY, vice-president and general manager of the Crompton & Knowles Loom Works, Worcester, Mass., and CHARLES B. BURLEIGH of the General Electric Co., were the principal speakers at the annual banquet of the Cro-Kno Club of the works, which was held at the Bancroft Hotel in that city on April 22.

J. HARVEY WILSON, vice-president of the Richmond Hosiery Mills, Rossville, Ga., and president of the Cromwell Hosiery Mills, of Chattanooga, Tenn., and J. J. KAHN, vice-president of the Cromwell Hosiery Mills, suffered slight injuries last week, when an elevator at the Hotel Patton at Chattanooga, in which they were descending from a banquet, dropped four stories.

WALTER HUMPHREYS, secretary of the National Association of Wool Manufacturers, who is also secretary of the Massachusetts Institute of Technology Corp., Boston, Mass., is chairman of the representative committee which will have charge of the inauguration of Dr. Carl T. Compton as president of the institute at the ceremonies to take place June 6.

WILLIAM M. MCLAURINE, secretary of the American Cotton Manufacturers' Association, delivered the principal address at the banquet given by the executives of the Watts Mill, Laurens, S. C., last week to the overseers and assistants in the various departments of that mill. About 150 men were in attendance. Mr. McLaurine's subject was "Leadership," as applied to the business of manufacturing cloth.

T. F. SMITH, cotton specialist of the U. S. Dept. of Agriculture, for four weeks, beginning June 10, will demonstrate at Clemson College (S. C.) Textile School, the various standard grades and staples of cotton as used in the U. S. Dept. of Agriculture in its cotton standardization work.

Sauquoit Spinning Mills, Inc., Gadsden, Ala., formerly Sauquoit Spinning Co., recently purchased by the Standard-Coosa-Thatcher Co., have elected the following officers: J. S. VERLENDEN, president; R. J. MATHEWSON, vice-president; T. H. MCKINNEY, vice-president and general manager; R. C. THATCHER, assistant general manager; A. H. THATCHER, treasurer and assistant secretary; S. M. GAMBLE, assistant treasurer.

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PAUL GROOVER has been appointed assistant agent of the Pepperell Mfg. Co., Biddeford, Me., by Agent Howard R. Whitehead, and assumed his new duties April 15. He graduated from the Virginia Military Institute and nine years ago entered the southern mills of the Pepperell company. Mr. Groover has become a member of the Biddeford and Saco Rotary Club.

FRANK SENIOR, of the Rex Knitting Co., Little Falls, N. Y., was elected to the board of governors of the Mohawk Valley Country Club at the annual meeting.

GEORGE I. ROUNDS has taken over the Chattanooga, Tenn., territory for Industrial Rayon Corp., with headquarters at 501 James Building, Chattanooga.

WILLIAM K. SAWYER has accepted a position as designer for Waldensian Weavers, Inc., Valdese, N. C. Mr. Sawyer comes from New Bedford, Mass.

NELSON N. HARTE, a graduate of the Textile School of North Carolina State College, has accepted a position with the Burlington (N. C.) Silk Mills, in the designing department. Mr. Harte for several years has been with the Ranlo Mills in charge of the testing laboratory.

DR. CHARLES E. MULLIN, head of the division of textile chemistry and dyeing in the textile school at Clemson College, S. C., will sail for Europe in June, to continue his study of the textile schools and textile education abroad.

& Sons, Inc., Uxbridge, Mass., has resigned and has been succeeded by WILLIAM MIRER, until recently with the Clairmont Woolen Mills, Inc., Wales, Mass.

HENRY J. PARKER has accepted the position as superintendent of the Champlain Silk Co.'s mill at Leeds, Mass. Mr. Parker had charge of a department at the Champlain Silk Co., at Whitehall, N. Y.

WILLIAM PICKERING, superintendent of Division No. 2, of the Loray plant of the Manville-Jenckes Co., Gastonia, N. C., has resigned.

JOHN L. ROBINSON, formerly of Greensboro, N. C., is now superintendent of the Glencoe Mills, Burlington, N. C.

D. M. BAILEY, who has been with the Riverside & Dan River Cotton Mills, Danville, Va., is now in charge of dyeing at the Durham (N. C.) Cotton Mfg. Co. Mr. Bailey is a graduate of the Textile School of North Carolina State College.

Keystone Finishing Mills, Burlington, N. C., and will be in charge of dyeing. Mr. Love was formerly with the Neisler Mills, Kings Mountain.

J. T. BARNES, for 12 years overseer of the cotton carding department of the Thorndike Co., West Warren, Mass., has resigned to accept a similar position at the Columbian mills of the Otis Co., Greenville, N. H.

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E. J. DRAWHORN is now overseer of the carding department of the Opelika (Ala.) Mfg. Co.

F. C. HARRIS, overseer of finishing in the cloth room of the Cramerton (N. C.) Mills, has resigned.

CHARLES GIBSON is now overseer of spinning at the Thrift plant of the Kendall Co., Paw Creek, N. C.

Board of Arbitration which passed on the H. C. Aberle full-fashioned hosiery wage dispute as previously reported in TEXTILE WORLD. *From left to right they are: Morris L. Cooke, former head of the Department of Public Works, Philadelphia; Benjamin Squires (chairman), experienced arbitrator of industrial disputes, and Morris L. Leeds, president of Leeds & Northrop Co., and head of the Philadelphia Metal Manufacturers Association. Their decision has been praised by both employer and employe representatives and has been accepted with a show of good will on both sides.*

J. EDWARD BURNSIDE, JR., has resigned as a member of the office force of the Ware Shoals (S. C.) Mfg. Co.

KENNETH W. HARVEY, manager of the Harvey Knitting Co., Wilson St., Woodstock (Ont.) Can., has returned from a month's vacation at Southern Pines, N. C.

F. B. BURGESS has resigned as chief construction engineer at the plant of the Bigelow-Sanford Carpet & Rug Co., Amsterdam, N. Y.

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W. H. COOPER, formerly general manager of the plant of S. Sanford & Sons, Amsterdam, N. Y., is passing several weeks' vacation in the West Indies.

J. N. BADGER, formerly superintendent of the Tucapau (S. C.) Mills, of the New England-Southern Mills group, is now superintendent of the Augusta (Ga.) Factory.

C. R. BROWN, for many years superintendent of the American Textile Co., at Atco, Ga., near Cartersville, recently resigned in order to devote all of his time to the operation of the Centrif Air Machine Co.

HOWARD J. HOLBROOK, for 22 years superintendent of the Elmdale Mill of S. F. Scott

FRANK COOPER is now master mechanic at the Diamond Cotton Mills, Salisbury, N. C.

J. M. DAVIS is now overseer of carding at the Washington Mfg. Co., Tennille, Ga.

S. C. DAVIS has been promoted from overseer of twisting, to superintendent of Unit No. 2 of the Loray Division, at Gastonia, N. C., of the Manville-Jenckes Co. J. W. HARE, who had for some time been second hand to overseer of twisting, was promoted to overseer of twisting, made vacant by Mr. Davis' promotion.

GEORGE ELLIOTT, assistant superintendent of the Pacolet Mfg. Co., Plant No. 4, at New Holland, Ga., has been made a member of the board of directors of the Gainesville (Ga.) Rotary Club.

DEWEY CRAVER is now overseer of weaving at the Loray plant of the Manville-Jenckes Co., Gastonia, N. C.

GUY FULLER is now in charge of the dyeing department of the Cherry Cotton Mills, Florence, Ala.

FRANK LOVE, a graduate of the Textile School of North Carolina State College, has recently accepted a position with the

C. D. HENDRICKS is now overseer of the cloth room of the Judson Mills, Greenville, S. C.

HUGH D. MATTHEWS, of Lowell, Mass., has accepted the position as overseer of spinning for the Champlain Silk Co., Whitehall, N. Y., succeeding HENRY J. PARKER.

JAMES L. MORROW has been made night master mechanic at the Eureka Cotton Mills, Chester, S. C.

ARTHUR NELSON, second hand in the dyeing department of the Ware (Mass.) Mills of the Otis Co., has been promoted to overseer of that department to fill the vacancy caused by the recent resignation of GEORGE MCKENZIE. JOHN MCKENZIE and WILLIAM MCCONVILLE have been named as assistants to Mr. Nelson.

JULIUS PASCHAL, formerly of Morganton, N. C., is now master mechanic for the Waldensian Weavers, Inc., of Valdese, N. C.

T. P. TAYLOR is now card room foreman at the Cherokee Spinning Co., Knoxville, Tenn.

J. H. TOMKINS has been appointed yard overseer at the Addison plant at the Edgefield, S. C., of the Kendall Mills, Inc., in the place of ROBERT GRIFFITH, who recently resigned.

NEWS about MILLS

Cotton

***Griffin (Ga.) Mills,** recently purchased by the Hightower interests of Thomaston, Ga., which have been revamped and new machinery added for the weaving of broadcloth, at a cost of approximately $400,000, will begin operations in a small way by July 1, and will be well under way by Sept. 1.

Beaver Cotton Mills, Elberton, Ga., which have been idle since 1927, recently suffered a loss of several thousand dollars by fire which destroyed machinery and supplies. This was erroneously reported as affecting the Elberton (Ga.) Cotton Mills.

***Lancaster Mills,** Clinton, Mass., in liquidation, ended production April 17, when the last of the warps were run out. The dyehouse has completely suspended. The power plant will be continued on a two-shift basis of 12 hours each, seven days a week. The Amoskeag Mfg. Co., Manchester, N. H., which purchased the weaving equipment, will ship only about 300 of the 4,500 looms to Manchester and will junk the remainder.

***Pocasset Mfg. Co.,** (Mill No. 5) at Fall River, Mass., capital $175,000, recently taken over by United Cotton Products Co., will manufacture gauze for surgical dressings. Edward J. Griffin is president; Edward Hurst, vice-president; Joseph A. Galvin, treasurer; and Dominic D. DeDio, assistant treasurer.

Wannalancit Textile Co., Lowell, Mass., is now manufacturing rayon cloth in a small plant on Jackson St., using 12 looms and employing 20 people. Allan Larter, who started the business about six months ago, is president, treasurer and general manager of the company.

Harmony Mills, Cohoes, N. Y., are now operating on curtailed schedules in virtually all departments.

Standard Spinning Co., Oswego, N. Y., controlled by the Frisbie-Stansfield Co., of Utica, N. Y., which is closing out all its property and retiring from business, was sold at public auction on April 16 to Abe Cooper of Syracuse, N. Y. The plant was closed five years ago and most of the machinery has been sold and shipped to southern mills.

Clara Mfg. Co., Dunn Mfg. Co., and **Armstrong Cotton Mills Co.,** all of Gastonia, N. C., have been combined under the name of the **American Combed Yarn Corp.**

Amazon Cotton Mills, Thomasville, N. C., are installing additional roving machinery in their plant.

Edna Cotton Mills, Reidsville, N. C., which suspended operations three weeks ago, on account of insufficient orders on hand at that time to keep the plant running, began operations on full time April 21.

New City Mills Co., Inc., Newton, N. C., recently formed by Clarence Capp, F. E. Garvin and C. M. Rowe, is understood to be a reorganization of the **City Cotton Mills Co.,** of which S. J. Smyer and W. B. Gaither, have been president and treasurer, respectively.

Ruby Cotton Mills, Gastonia, N. C., have recently placed an order with Borne Scrymser Co., New York City, for complete set of "Breton Minerol" process equipment. This will be installed by Herbert Hinckley Inc., the Charlotte, N. C., representative.

Miller Mfg. Co., located about five miles south of Taylorsville, N. C., has been acquired by A. A. Whitener, of Hickory, N. C., and D. P. Rhodes and Paul Rhodes, of Lincolnton, N. C. The mill has 8,400 spindles, and practically all of the equipment is new. The replacement value of the plant is estimated at about $500,000. All of the purchasers are experienced and successful cotton mill operators.

Cross Cotton Mills Co., Marion, N. C., is installing additional dyeing and bleaching machinery purchased from the Gaston County Dyeing Machine Co., Stanley, N. C.

Mooresville (N. C.) Cotton Mills, manufacturers of towels and colored cotton goods, are now doing their own dyeing, bleaching and finishing and also manufacturing their own yarns, thus making the mill a complete unit. Under normal conditions, the mills give employment to 1,000 persons.

Proximity Mfg. Co., Revolution Cotton Mills, and **White Oak Cotton Mills,** of Greensboro, N. C., increased operating schedules from 40 to 50 hours per week, April 21. Effective next week, the plants will be operated from Monday morning through Thursday afternoon each week, until further notice.

John Farnum Co., Lancaster, Pa., sheetings, tickings and awnings, which was recently taken over by a group of Lancaster business men, has started operations in some departments, employing about 100 persons, and will add more employes as soon as all departments are in operation.

Darlington Textile Co., Pawtucket, R. I., brocaded fabrics of rayon, cotton and worsted, is said to be arranging for the permanent closing of its local mill. It is proposed to remove the equipment and use at another location.

F. W. Poe Mfg. Co., Greenville, S. C., plant is operating a day schedule of 50 hours per week, and maintains no night shift. Night work at the Poe plant has been eliminated for nearly a year. Officials of the mill state that there is no immediate prospects of the mill increasing its operating hours.

Winnsboro (S. C.) Mills will have their tire cord production increased 17% by July. The U. S. Rubber Co. will spend $200,000 increasing the production facilities. The equipment has already been ordered.

Williamston (S. C.) Mills are running on a capacity day and night schedule, giving employment to full working force; the day basis is 55 hrs. a week, and night schedule, 50 hrs. weekly.

Wool

Uxbridge (Mass.) Worsted Co., Inc., has curtailed in several departments, which resulted in a large number of employes being laid off.

Thayer Woolen Co., North Oxford, Mass., has resumed a full-time schedule, after having operated three days a week for the last few months.

Waucantuck Mills, Uxbridge, Mass., which have operated on a 24-hour schedule for several years have curtailed production to three days per week and no night work.

Franklin (N. H.) Mills, dress goods and broadcloths, operated by the M. T. Stevens & Sons Co., are increasing production at their mill and adding to working force; some of the departments will give employment to a night shift until further notice.

Waterloo (N. Y.) Textile Corp., manufacturing overcoatings, auto fabrics, uniform cloths, etc., is expected to be in full operation by May 1, with 400 people on the payroll.

Pendleton (Ore.) Woolen Mills, manufacturers of blankets, sports clothing and suiting materials, expect to double the size of their plant, according to announcement made by C. M. Bishop, vice-president.

***Rosanna Mills, Inc.,** Upland, Pa. Receivers of the company have announced that the property has not been sold at private sale, as rumored, but that the auction will proceed on May 13 at 11 a.m. daylight saving time.

Swift River Woolen Co., Westerly, R. I., is the name of the company which recently took over **Potter Hill Woolen Co., Inc.,** incorporated for $100,000, manufacturing men's and women's wear. John Quinn, Jr., is president.

Knit

Sulloway Mills, Franklin, N. H., have adopted a capacity production schedule with full working force, including night shift, and will continue on the new basis for an indefinite period.

Amsterdam (N. Y.) Hosiery Mfg. Co. has been reorganized with Thomas Mc-

*Indicates previous mention of project.

Gibbon taking over the controlling interest previously held by Van B. Wheaton. Expansion plans are being mapped out which will double present production.

Ballston (N. Y.) Knit Glove Co. Inc., creditors have accepted a compromise settlement on a 10% basis made by the **Ackshand Mills** of that place. The latter firm plans to take over the plant and continue operations.

Walcott & Campbell Spinning Co., New York Mills, N. Y., is reported to have leased its local plant to Kauffman Knitting Co., of Buffalo, which company plans to start operations as soon as its equipment can be moved.

Argus Knitting Mills, Brooklyn, N. Y., have arranged for an increase in capital from 102,500 to 112,500 shares of stock, no par value, for general expansion.

Jordan Knitting Mills, Inc., Brooklyn, N. Y. Emil G. Wolfsohn has been appointed receiver for this company in bond of $1,000.

Chenango Knitting Co., of Sherburne N. Y., is now running full time. This mill is very busy on 300-needle all-silk chiffon finished no-gloss hose, and has recently added 15 more machines for this work.

Ellis Silk Hosiery Co., Charlotte, N. C., is advancing production at its mill, giving employment to a night shift until further notice.

Perfection Hosiery Mills, Inc., Burlington, N. C., are said to have detailed plans in preparation for the rebuilding of portion of mill recently destroyed by fire, with loss of about $75,000, including equipment, and will begin superstructure at an early date.

Durham (N. C.) Hosiery Mills, have cut operations to half time or less in their cotton hosiery and spinning departments, but are operating the full-fashion mill regularly on double shifts.

Pilot Hosiery Mills, Asheboro, N. C., have installed 25 additional machines for the manufacture of infants' socks with Fidelity ribbed tops.

***Pine State Knitwear Co.,** Mount Airy, N. C., recently organized to manufacture bathing suits and sweaters, has awarded contract for installation of knitting machines to Wildman Mfg. Co., of Norristown, Pa.

***Stimpson Hosiery Mills,** Statesville, N. C., have been issued a charter to do a manufacturing business with $200,000 capital stock authorized and $35,000 subscribed by Clarence Stimpson, Fred Guerrant and Mrs. Margaret Tillery, all of Statesville.

Southern Mercerizing Co. of Tryon, N. C., has recently completed the installation of machinery and equipment necessary to manufacture hosiery at its Sumerco plant. Operations began last week. F. P. Bacon and W. C. Ward own the plant, and Julian B. Carpenter of Landrum, S. C., is superintendent.

*Indicates previous mention of project.

Hanes Hosiery Mills Co., of Winston-Salem, N. C., has contracted with the B. F. Sturtevant Co., Charlotte, N. C., for a complete ventilating and cooling system for the boarding room.

Moorhead Knitting Co.'s Chambersburg, Pa., plant has closed down and machinery and equipment are being transferred to company headquarters at Harrisburg, Pa.

Doylestown (Pa.) Knitting Mills, Inc., capital $20,000, has been granted a charter to knit, weave and spin. Incorporators mentioned were Chas. W. Grobel, Philadelphia, Wm. Schuster, Jr., and Louis Winckler, the latter of Doylestown.

Tackawanna Silk Hosiery Co., Philadelphia, Pa., is being organized by local interests to operate a mill at Tackawanna and Womrath Sts. Charter is expected to be secured at once. The new company will be represented by Robert E. Erwin, 4510 Frankford Ave., Philadelphia, attorney.

Howard Hosiery Co., Philadelphia, Pa., manufacturer of seamless and full-fashioned hosiery, is moving all knitting equipment from the local plant to its branch mill located at Slatedale, Pa., and in the future will confine activities at the local plant to dyeing and finishing of hosiery knitted at the up-State plant.

Rock Hill (S. C.) Hosiery Co., and the industrial committee of the Rock Hill chamber of commerce are working on plans for extensive additions to the plant. The plans being discussed include tripling the size of the building at a cost of $30,000, and installing new machinery to the value of approximately $200,000.

Gem Hosiery Co., Milwaukee, Wis., recently formed by Richard S. Boemer, 68 East Wisconsin Ave., Milwaukee, and associates, is reported considering operation of local mill. Charles F. Millman, Trust Company Building, is interested in the new organization.

Allen Bros. Co., Ltd., Toronto (Ont.) Can., has closed its Toronto mill and moved the manufacturing equipment, dye plant and head office to Hanover, Ont., where the company has a mill. A sales office will be maintained in Toronto. Steps are being taken to change the name to Allen A. of Canada, to correspond with the firm of Allen A. Co., of Kenosha, Wis., with which it is affiliated.

Silk

Hind & Harrison Plush Co., Clark Mills, N. Y., has agreed to turn over its hydro-electric plant to the Utica Gas & Electric Co. when the latter concern secures the necessary permission from the Public Service Commission.

Barnett-Rich Co., Inc., Shillington, Pa., recently organized with capital of $6,000, to operate a local silk mill, will be represented by Richard R. Stephens, 1153 North 10th St., Reading, Pa., one of the incorporators, who will be treasurer of the company. Barnett Levy, 124 North 4th St., Reading, is also interested in the new organization.

***Darlington Textile Co.,** Pawtucket, R. I., will discontinue operations May 1. The machinery will be dismantled and shipped to the Pinoca Mills, Inc., Charlotte, N. C., and the Mazuy Mills, Newton, N. J. All the companies are units of the Darlington Fabrics Corp.

***Brupbacher Silk Mills, Ltd.,** have completed arrangements for the establishment of a broad silk weaving plant at Valleyfield (Que.) Can. The company which has a paid up capital of $1,000,000, is located at present at 1015 St. Alexander St., Montreal, and is a subsidiary of E. W. Brupbacher, Ltd. The new mill will have 100 looms and construction work on the throwing and weaving plant will begin in the near future. E. W. Brupbacher, will be president and general manager of the new concern.

Rayon

Tubize Chatillon Corp. of Hopewell, Va., will install 14 double deck Sipp Eastwood winders purchased from the Carolina Specialty Co., Charlotte, N. C.

Du Pont Rayon Co., Waynesboro, Va., has announced that the plant has not curtailed production, as reported, but on the contrary, it is planning to increase production for each succeeding month this year. The present payroll is $17,000 a week.

Finishing

Standard Bleachery Co., Carlton Hill, East Rutherford, N. J., has disposed of its residential site for employes, including about 50 houses, community house, playground, park, etc., to A. W. Van Winkle & Co., Rutherford, for a cash consideration. The purchasing company will offer the property in units to individual buvers.

Union Bleachery, of Greenville, S. C., has contracted with Andrews & Goodrich, drying experts, of Boston, Mass., according to Isaac Hardeman, local representative, for five drying systems for tenter frames, including their special insulated housing and Sturtevant silent vane fans.

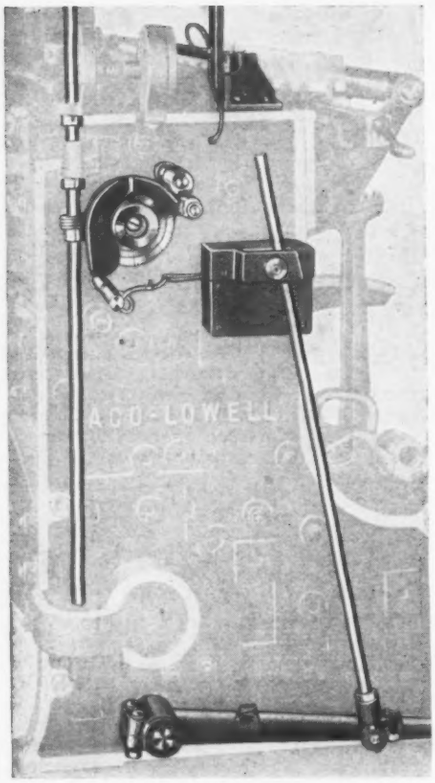
Miscellaneous

Linen Thread Co. of Mass., North Grafton, Mass., is to close down its "1910 building" which contains the preparing, spinning and reeling departments, as soon as the present stock is run out. The work formerly done by these departments will be done at some other plant of the company and sent to North Grafton to be finished.

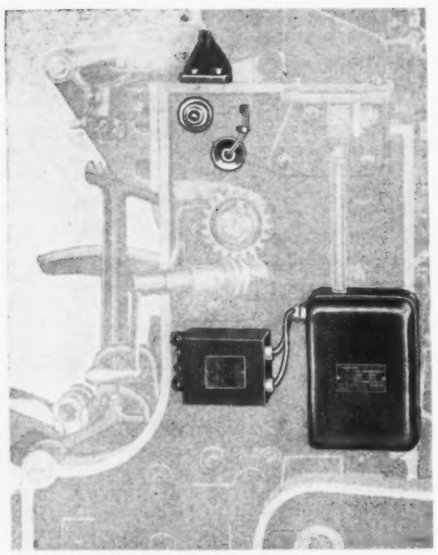
D. & K. Fibre Co., Broadalbin, N. Y., has completed a large new addition to its plant and is busy installing new equipment prior to doubling output.

Carolina Bedding Co., Charlotte, N. C., has recently installed a $3,500 Triangle Kapok machine, in addition to the regular machinery used to make felt mattresses.

New Machinery a



Left-hand end of warper, equipped with electric stop motion, showing foot pedal, circuit breaker, and one end of charged bar



Right-hand end of warper, showing transformer, push button, and one end of charged bar

Electric Stop Motion on High-Speed Warpers

THE K. A. stop motion, well known in its application on looms, has been adapted for high-speed warpers by the Saco-Lowell Shops, 147 Milk St., Boston.

The current is furnished from the electric-light circuit and is stepped down from 110 volts to low voltage by a bell-ringing transformer of 75 watts, having three steps; viz., 6, 14, and 20 volts. All wiring is protected by substantial conduit.

The drop wires are supported by the yarn above an electrically charged bar, which is insulated from the rest of the machine. If an end breaks, the wire drops, forming a circuit which releases the foot lever through the magnet box. This in turn throws the switch, which stops the driving motor. On a pulley-driven machine, the releasing of the foot lever acts on the shipper so that the belt is immediately shifted to the loose pulley. A circuit breaker operates immediately after the drop wire falls, cutting off the current until the foot pedal is again lowered into running position and the warper started.

A push-button station is provided on the right-hand side of the machine for use of the operator in stopping the warper by hand when necessary. The warper is stopped on the left-hand side by disengaging by hand the foot-lever latch.

When the full yardage is on the beam, a latch drops into a slot in the clock worm. The arm of the latch comes in contact with a charged rod, closing the circuit, which draws the magnet, throwing the switch or the shipper as described above.

The stop motion operates instantaneously, with the result that a fine adjustment can be made on the brake to reduce friction of the drum against the yarn. By relieving the brake of a considerable load in sudden stopping, the life of the mechanism is lengthened and adjustments are seldom required. There is less chance of losing the end when a break occurs. The time saved in piecing up means greater efficiency of the machine, which reflects greater production. The electric stop motion can also be applied to slow-speed warpers.

Elevator Drive

A NEW drive for bucket elevators of the centrifugal-discharge, perfect-discharge, or continuous bucket types has been brought out by H. W. Caldwell & Son Co., 2410 West 18th St., Chicago, a subsidiary of the Link-Belt Co. The drive is claimed to be compact, efficient, and quiet at all speeds, and is available from stock in a wide range of ratios, from 3 to 15 hp., for standard motors.

The first reduction of the drive is made up of a ruggedly built, fully enclosed, worm-gear speed reducer to which a motor is coupled. The motor and the worm reducer are aligned on a welded-steel base, making a compact assembly easily supported on the elevator casing or platform. The worm-gear-reducer unit has a hardened and ground steel worm, while the worm gear is of special bronze. This enclosed high-speed reduction unit is direct-connected to the motor through a flexible coupling. All bearings are of the anti-friction type, with automatic splash lubrication for all moving parts. The second reduction in speed is made by a Link-Belt "RC"-class roller chain, engaging with cut-steel pinion on worm-gear shaft, and with cut cast-iron sprocket on elevator-head shaft.

Test for Slipperiness of Fabrics

A SIMPLE method has been devised by the Bureau of Standards for specifying the slipperiness or smoothness of a fabric in terms of the coefficient of friction between two pieces of the material. The work is a part of the cooperative investigation of fine fabrics by The Cotton-Textile Institute and the Bureau.

The utility of fabrics for certain purposes depends to a large degree on their surface characteristics. For example, slipperiness is undesirable in the backing of rugs, but is required of linings used in coat sleeves, shoes, and jewelry cases, and is a prominent feature of sleeping garments. The "creeping" of garments over

and Processes

one another, particularly the creeping of some underwear, is an objectionable feature which is related to the slipperiness of the surface.

In the test which the Bureau has devised a block covered with a sample of the fabric is placed on an inclined plane which is covered with another piece of the same fabric. The angle between the inclined plane and the horizontal is then increased to a value at which the block just begins to slide. Owing to a reaarrangement of the fibers in the surfaces of the fabric, this minimum angle decreases with successive slides. A number of slides are therefore made until a constant limiting angle is found. The tangent of this limiting angle is defined as the coefficient of friction for the fabric.

Appliance for Detecting Metallic Particles in Fabrics

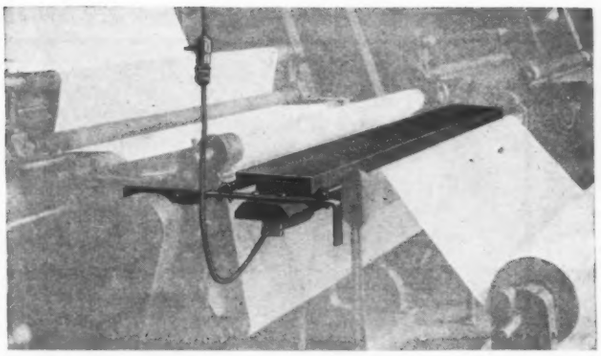
METALLIC particles embedded in fabrics are detected by a safety device recently placed on the market by the Blake Electric Mfg. Co., 255 Atlantic Ave., Boston, Mass. The presence of dryer pins, broken needles, or other metallic particles which are liable to cause damage to rotary presses, shears, and similar machines is made known by an audible signal. This warning enables the machine to be stopped immediately, and thus prevents scoring of the cylinder or packet by foreign substances. The device is designed to be attached to a large number of machines used in finishing of dry fabrics.

The safety device consists of two brass plates, approximately 6 in. wide, extending the width of the machine to which it is applied. Before entering the machine the cloth passes between these plates. The plates are connected electrically to the lighting circuit, and any foreign metallic substance embedded in the cloth as it passes between the plates completes the circuit, sounds a signal, and warns the operator that there is danger. The operator stops the machine and removes the metallic material from the cloth. Since the outfit is equipped with a continuous-signal push-button stop arrangement, if the cloth passes beyond the edge of the plate before the operator's arrival, the signal continues to sound.

Mercerizing Cotton Roving

MERCERIZING of cotton in the form of roving is said to be made possible by a process and machine announced recently by Hygrolit, Inc., 576 Davis Ave., Kearny, N. J. The cotton is treated with a special mercerizing solution in the form in which it leaves the slubbers or intermediate frames.

Roving on the slubbers is wound on perforated tubes constructed of rust-proof steel which are put over common flyer bobbins made of wood or hard-pressed paper. The roving is then wound on in the usual manner. The perforated tubes holding the roving are removed from



Appliance for detecting metallic particles in cloth attached to rotary press

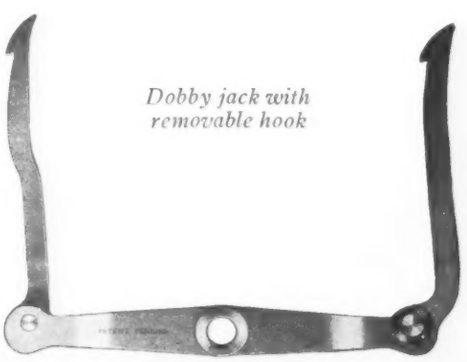
the bobbins and placed in a special apparatus containing the mercerizing liquor. This solution causes shrinking of the cotton fiber. Natural tension is afforded by the wound form of the roving; and mechanical tension devices, such as are needed for mercerizing skeins, are unnecessary. Washing and drying of the roving is carried out while it is still on the tubes. The tubes are replaced on the flyer bobbins and the spinning operations are continued. The mercerized yarn, in spinning, can be brought immediately into any kind of package that the mill may desire, such as bobbins, cops, cones, or beams.

The manufacturers state that the Hygrolit method is especially important for treating cotton that is to be used in the manufacture of plush, knitting yarns, and mixed fabrics containing rayon, and also for installation in spinning mills desiring to install small mercerizing units. Eliminating the necessity of winding the yarn on skeins is said to reduce the cost of mercerizing.

Dobby Jack with Removable Hook

REMOVAL of worn-out hooks without taking the jack back out of the dobby frame is permitted by a dobby jack brought out recently by The Stafford Co., Readville, Mass. These new dobby jacks are said to speed up production and cut down seconds. They are included on all new Stafford looms equipped with dobbies and can be supplied to fit any standard loom.

To insure strength and durability, both the back and hook are constructed of full-hard, cold-rolled, hinge steel. The slotted hook is held securely in place by a tempered spring washer riveted to the hook. When it is necessary to remove a worn hook the whole operation can be performed in a few seconds by lifting one side of the spring washer and sliding off the hook. A new hook can be slipped in place instantly.



Dobby jack with removable hook

Durene

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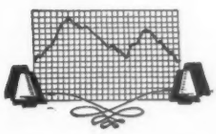
Representatives in All the Principal Countries of the World

TEXTILE WORLD ANALYST



Business to Continue Dull Until Fall

Textile Industries, Now at Low Ebb, Should Become Stabilized Soon, Says Dr. Haney

SUMMARY

Business has reacted from the January-February rally. As the trend of employment continues downward, and commodity prices have again fallen back, while no improvement in the farm situation or in foreign trade is yet in sight, it is probable that business will continue poor throughout the summer. The textile industries appear to be about as low as they can go. Judging by past textile cycles, they should soon become stabilized and recovery may be hoped for by fall.

•

The analysis and forecast by Dr. Lewis H. Haney, Director, New York University Business Research Bureau, which regularly appears on this page, considers various branches of the textile industry from week to week. The conclusions reached in the Analyst are mostly forecasts and generally apply to a time two or three months ahead. The Analyst is based on statistical data and does not reflect temporary trade sentiment.

WHILE we find indications of greater stability in business here and there, it is still true that most of the reliable business barometers point downward. This is the plain fact. The most hopeful indication of late, the greater stability in commodity prices, appears to have become somewhat less favorable, with reactionary trends developing in wheat and cotton and the recent break in copper prices. These have brought renewed declines in the weekly averages.

This leaves petroleum products as about the only strong spot among the commodities. Even there, the announcement of the recent advance in the price of crude oil was made with the proviso that any increase in production might bring another price cut. Thus the larger average daily output of oil reported last week and the increased stocks of gasoline cast some doubt on the permanence of improvement in the oil industry. Production and imports of crude oil continue somewhat in excess of refinery consumption.

The belated cut in copper prices, while it will ultimately be constructive and had long been awaited, is a confession of the weakness of the demand for this metal and of the improbability that business activity is likely to increase sufficiently in the near future to allow a balancing of the supply and demand.

On the Favorable Side

On the favorable side of the business balance sheet, we can put the following: commodity prices have shown greater stability in recent weeks. There was a March gain in the unfilled orders of the U. S. Steel Corp. which was greater than usual for the season. Money rates continue appreciably lower than the yield on high-grade bonds, which should encourage investment. Large construction programs on the part of municipalities, utilities, and railways, are in prospect. It may be added that possibly the spectacle of a rising stock market has helped business sentiment.

But as already noted, indications of greater weakness in commodity prices have again appeared. Even of the gain in unfilled steel orders it must be said that it was at least partly due to reduced shipments in March. In spite of favorable money rates, the bond market has been sagging for several weeks, which perhaps emphasizes the fact that money is none too easy for the small business man anywhere, such ease as exists being found mostly in funds for speculation at the large centers. It is thus chiefly effective in stock speculation. In fact, sound observers are beginning to feel that inflationary developments have made considerable progress in the stock market, and there is some misgiving that this may prevent the free flow of funds into strictly investment channels.

On the other hand, we find employment and payrolls in a continued downward trend, and both reason and experience indicate that no recovery in general business is likely to occur as long as this trend continues. Department store sales in March fell 12% below a year ago, indicating a decline from February which was greater than can be explained by the lateness of Easter. Newspaper advertising linage continues to decline, considering the season, and is at the lowest rate since 1924. Building contracts and permits made less than the usual seasonal gain last month. Foreign trade figures for March were highly unfavorable, the exports and imports both continuing in their declining trend. Imports are an excellent business barometer and, after allowing for the usual seasonal changes, they are the lowest since August, 1924.

No Basis for Early Improvement

In addition to these reliable indications of trend, we find little basis for expecting any early improvement. Such a basis might exist if the purchasing power of laborers and farmers were good or improving, or if the foreign demand for our products were strong. None of these conditions exists, however. Certainly we find no commodity shortages which are likely to stimulate demand in the near future; rather stocks of manufactured products in first-hands stand at a generally high level. It, therefore, seems that business is still in the liquidating phase of the current cycle, during which curtailment of production is desirable in order that accumulated stocks of commodities may be reduced.

Nearly all reliable indications point to a very dull summer business.

A comparison of the price and pro-

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duction curves illustrates the situation. Production fell in December to a point a little further below our estimated trend line than it reached in December, 1927. It did not, however, go nearly as low as in 1921 or in 1924. But production in 1929 was far more in excess of normal than it was in 1923 or in 1926. This fact, along with other conditions, resulted in a general downward trend of commodity prices. The January-February rally in production was not called for by any recovery in commodity prices such as occurred at the end of 1923 or 1927. In fact, our P-V Line (which it will be remembered is the ratio of commodity prices to the physical volume of trade) is still below normal, which indicates that in general supplies are in excess of demand. It suggests a continuation of buyers' markets in most commodities. Under such circumstances, if production is increased, prices are likely to fall, a conclusion which seems the more certain in that inventories in most producers' hands are so large.

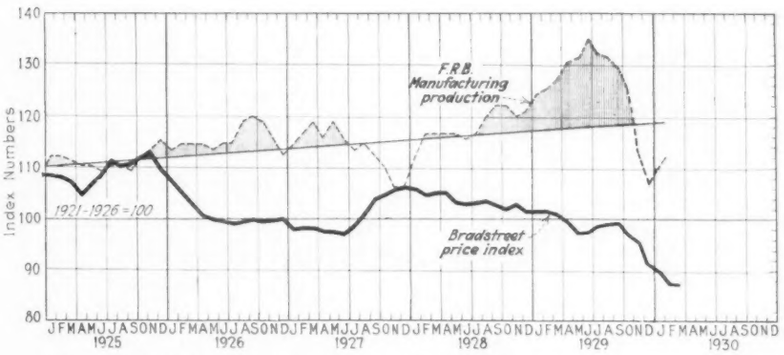
Textiles Perhaps at Bottom

As to the general situation in the textile industries, perhaps the most hopeful thing that can be said is that it seems to have gotten nearly as bad as it can be. Our estimates as to the value of chief textiles produced have fallen to the lowest point reached in a record that goes back through 1922. Wholesale dry-goods sales showed the same condition, and are barely in line with the estimated total value of textile products. In neither case do we find any clear indication of a turn for the better. Department store sales have not been so low in any recent year except for the poor April business in 1928 and again last year.

About all that can be said is that the activity in textile production is now at a very low level and that a period of about two years has elapsed since the bottom of the last textile cycle. Possibly there are some indications that our value-of-production curve is about to become stabilized. In short, while it is difficult to find any basis for forecasting early improvement, there is some ground for hoping that the worst part of the current textile cycle has been passed and that, with continued control over production, the industry may soon become stabilized—a condition which should precede a sustained expansion.

Fiber Prices Point Downward

The prices of the chief textile fibers have continued to point downward. This is true whether they be considered alone or in relation to the general average of commodity prices. For a year, cotton and wool have declined more rapidly than the general average. Silk, too, has lost a little ground relatively, though its decline has not been much greater than the average for all commodities.


140
130
120
110
100
90
80
Index Numbers
F.R.B. Manufacturing production
1921-1926=100
Bradstreet price index
J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D
1925
1926
1927
1928
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1930

Fig. 1—PRODUCTION AND PRICES—Industrial Production—Average Daily, Adjusted for Seasonal Variation, Federal Reserve Board; Commodity Price Index—End of Month, Bradstreet's Journal. Average 1921-1926 = 100 for both indexes.

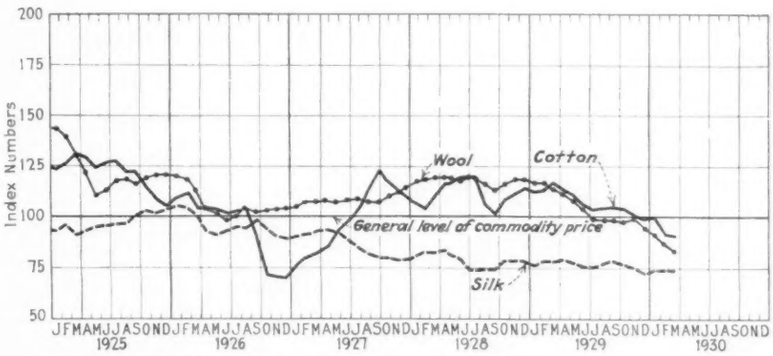

200
175
150
125
100
75
50
Index Numbers
Wool
Cotton
General level of commodity price
Silk
J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D
1925
1926
1927
1928
1929
1930

Fig. 2—TEXTILE PRICE LEVELS—Chart shows how chief textile fibers compare (1) with the general level of commodity prices and (2) with each other. The 100 line = average of all commodity prices, and fibers are normally priced when near the general level. The several fiber price curves are so placed that normally they should be close together.

Compared with the average relationship that has existed during a ten-year period (five pre-war years and five post-war years), all textiles are relatively low. Since July, 1929, even wool has been below its average relationship with the general price level. Relatively, silk is the cheapest; then comes wool; then cotton. (As depicted in the chart, the base line is the average of commodity prices as reported by the Bureau of Labor Statistics.)

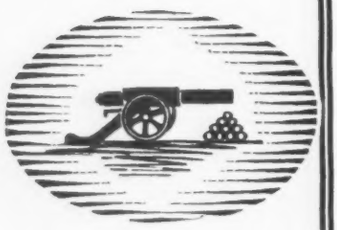
Recently this situation in textile prices has found a tardy reflection in retail clothing markets. According to the National Industrial Conference Board, clothing prices are now down to about where they were in early 1923 and are more nearly in line with other chief items in the cost of living than they have been in a long while. While textiles are at least 40% lower in price than in early 1923, however, clothing averages about the same as then. Some progress has been made toward such a reduction in retail cost of clothing as may stimulate increased consumption, but it seems logical to conclude that this trend must make further progress before the textile industries can be restored to a condition of complete prosperity. A further decline in the cost of living, including clothing seems probable and this should ultimately help textiles.

The Textile Trend

Cotton Textile Markets—Cotton goods sellers are much disheartened over the continued unfavorable spread between cotton and gray-goods prices. The 64x60, 5.35 yd. goods are selling at 6c., the same price that prevailed in March when cotton was practically 2c. a lb. lower than at present. It is believed that this unhealthy status will force mills into a program of curtailment very soon. Talk along this line is heard from the denim producers. It was stated that the leaders in this field would start running on a four day week in the near future.

Wool Textile Markets

The tailors-to-the-trade still lead in purchasing and have placed close to a normal volume of business. The bulk of the business has been for duplicates of spring styles, but a few houses have placed initial requirements for fall. Other clothing trades are less favorably



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for the Southern States

CANNON YARNS

situated. Mid-western clothiers and jobbers are buying tweeds and topcoatings in a limited way, but are thought to be carrying over substantial stocks of overcoats. A few manufacturing retailers have commenced operations, but as a whole they do not feel too cheerful. Worsted yarns spotty; better interest in outerwear counts for quick delivery.

KNIT GOODS MARKETS

Outerwear market very firm, with bathing-suit demand at high-pressure and numerous mills booked solid; fancy sweaters fair; heavyweights quiet. Medium and lightweight underwear spotty; cottons active and rayons improved. Heavyweight underwear slow; spring trade below par. Hosiery soft, following unsatisfactory Easter; half-hose spotty with demand centering on price goods.

SILK TEXTILE MARKETS

Raw silk continued weak; prices were soft to nominal; a decided buyer's market prevailed. Thrown yarn weakened in sympathy, and prices were a few cents off. Broadsilk market steady; sheers and shantungs active, but staples unsatisfactory. Spun silk very firm, with slightly easier demand.

Investors Interested in Mergers

Textile Share Trading Very Light and Mostly at Declines

BOSTON.

THE textile share situation this week was featured by an almost complete dearth of mill statements. Most of the bad news is probably now all out, and better news is in order as the year progresses. That the depression has reached its end however may be doubted in view of the slow and unsatisfactory merchandising position in wool and cotton products. "There is no knowing when the break will come which will enable the manufacturer to gage future business," states an important executive.

There is little indication at the moment of any cessation of cut-throat competition in woolen and worsted lines. This is probably the worst that can be said but is unlikely to be other than the expression of a passing phase in the industry's attempt to adjust itself to a new era, and it is about as unwise to be a "bear" on a great essential industry as it is to be a "bear" on the United States.

PENDING MERGERS

The uncertainty injected into stock values by the several pending mergers keeps investors very generally on the anxious seat. Merger talk continues a feature of the mill share market. Most investors who own stock in the corporations involved in the proposed Bancamerica combine are endeavoring to find out all that is possible about merger prospects and as to who are likely to be actively engaged in the management. It is believed that it will prove a good thing for the industry to have the mills grouped into larger organizations with the selling concentrated in fewer and stronger hands, but each stockholder is anxious to find out whether such a merger will have a good or bad effect on his own particular holdings.

Some 650 shares, representing 18 mills, were traded in at the Boston stock auctions this week. York Mfg. at 7¾ made a gain of 2⅜ points and was the only stock to sell at an advance. Pepperell Mfg. lost 1⅞ to 95¼ and Nashua, common, 2¾ points to 32½. Other price changes were fractional. The average market price on 20 of the most active Fall River shares this week was 30.63 as compared with 31.05 the previous week and 33.45 a month ago.

TEXTILE PRODUCTS EARNINGS SMALLER

The Standard Textile Products Co., and subsidiary, the Mobile Cotton Mills, Mobile, Ala., report for the year ended Dec. 31, 1929, consolidated net income of $535,461, after interest, depreciation and Federal taxes, equal after preferred A dividends to $4.63 per share on 40,000 participating preferred B shares. In 1928 net income was $736,073, or $9.65 on the preferred B stock. Current assets on Dec. 31, 1929, totaled $5,070,657 and current liabilities $2,054,971. Inventories amounted to $3,829,137 and earned surplus $126,115.

BOSTON STOCK AUCTIONS

The following sales of textile shares were made at Wednesday's auctions:

Shrs.	Mill	Par	Price	Change
46	Berkshire Associates, pfd.	100	72¾–71	—4
150	Otis	100	40⅜	— ⅛
65	Associated Textile	...	35–36½	....
45	Berkshire Associates, com.	....	15½–¼	—1¼
53	Naumkeag	100	85½–88	....
20	Nashua, com.	100	32½	—2¾
10	Nashua, pfd.	100	75½	—1¼
6	Everett	100	3¾	....
74	Ludlow	....	141–140	—2
50	York	100	7¼	+2⅜
3	Pepperell	100	95¼	—1⅞
95	Newmarket	100	29	—1
16	Lancaster, com	100	$5 for lot	....
633	Total			

QUIET MARKET IN SOUTH

CHARLOTTE, N. C.—Southern cotton mill stocks for last week were witnessed by a quiet and inactive market, and little interest was manifested in either common or preferred issues. However, the latter stocks with unbroken dividend records have held up well in price with a fair demand.

The average bid price of 25 common stocks closed for the week ended April 19 at $80.60 or a net decline of 48c. per share for the week, according to the report furnished by R. S. Dickson & Co.

Textiles on N. Y. Exchanges

The following shows the movements of the leading textile stocks listed on the New York Stock Exchange and Curb for the week ended April 23:

	High	Low	Last Sale	Net Change
Adams Millis	31⅛	30⅜	31⅛	— ⅛
*American Thread	3⅜	3⅜	3⅜	....
American Woolen	15⅛	14½	14½	— ⅛
American Woolen, pfd.	39⅜	37⅝	37⅝	— ¼
*Assoc. Rayon, pfd.	59½	56⅜	58⅜	....
Belding-Hemingway	5	5	5	— ⅛
*Blumenthal	38⅜	38⅛	38⅜	+ ⅛
Cannon Mills	30⅜	28	28⅛	—2⅛
Century Ribbon	5⅜	5⅛	5⅜	+ ⅛
Collins & Aikman	31	28½	30	+1
Consolidated Textile	1⅜	1⅛	1⅛	....
*Courtaulds, Ltd.	12½	12½	12½	....
Duplan Silk	16½	16½	16½	— ⅛
*Fabrics Finishing	8	5½	8	+1½
Gotham Hosiery	23¾	20¾	21	— 2
Industrial Rayon	112½	112	112	— ½
Kayser, Julius	36	32¾	32¾	—3¼
Kendall, pfd.	87	87	87	....
Mallinson	9½	8⅛	8⅛	+ ⅛
*May Hosiery, pfd.	24⅛	23⅛	24½	+1⅛
*Mock Judson	24⅛	24	24⅛	— ⅛
Mohawk Carpet	24⅜	24	24	—1
Munsingwear	50¾	50	50	+ ⅛
Pacific Mills	25	25	25	— ⅛
*Pepperell	95	94¼	95	....
Phoenix Hosiery	18	18	18	— ⅛
*Propper-McCallum	17⅛	17	17⅛	—1
Real Silk Hosiery	59	56⅛	57⅛	—1
*Tubize Chat. B	21⅛	18⅛	18⅛	—2⅛
United Piece Dye Wks.	30⅛	28⅛	30¼	+ ¼

*Listed on Curb.

New England Textile Stocks

Quotations at "Public Sale" are based on last sales at Boston Public Auctions and Boston Stock Exchange. Bid and Asked prices are latest quotations of leading Boston dealers.

	Public Sale	Bid	Asked
Am. Mfg. pfd.	68	66	70
Amoskeag	14⅛	...	...
Arlington	23	22	24
Associated Textile	36½	34	37
Bates	63	81	84
Berkshire Associates, com.	15½	16	18
Berkshire Associates, pfd.	71	75	85
Bigelow-Sanford, com.	72½	...	...
Boott Mills	120½	115	121
Edwards	80½	80	...
Esmond, pfd.	102	100	102
Farr Alpaca	70	69	72
Hamilton Woolen	3½	41	44
Hill	18	18	23
Indiana Orchard	28½	20	30
Ludlow	140	140	142
Merrimack, com.	72	74	80
Nashua, com.	32½	31	33
Nashua, pfd.	75½	75	78
Naumkeag	88	85	88
Newmarket	29	25	32
Otis	40⅜	42	44
Pacific	25	...	...
Pepperell	95½	96	98
Plymouth Cordage	83	80	84
York	7¼	7	8

Annual Report of Mellon Institute of Industrial Research

In his seventeenth annual report to the board of trustees of Mellon Institute, Director E. R. Weidlein has summarized the activities of the institution during the fiscal year ended Feb. 28, 1930. Over $900,000 was contributed by industrial-fellowship donors

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comes to you the way you want it!

Skein inspected . . . bleached . . . oiled and coned . . . quilled . . . sized and warped. The right rayon yarn in the right form for your most profitable use!

THE Viscose Company stresses these two points in their service and backs them up with nearly twenty years' experience:

■ **HELPING** you choose the right rayon yarn for your particular purpose: there are now more than thirty Crown Brand varieties for every type of weaving and knitting.

■ **DELIVERING** your purchase in the form best suited to its economical use: just name the finish and form which fits your manufacturing requirements and cuts your costs.

For the processing of rayon yarns—oiling and coning, quilling, sizing and warping—no rayon yarn producer in this country is better equipped or more thoroughly experienced than The Viscose Company. Some 400,000 square feet of floor space are devoted to this work in our various plants. Every year we process millions of pounds, first bleaching the yarn with special care and subjecting it to the closest inspection in the skein.

The Viscose Company is the largest rayon yarn producer in the world and was the first manufacturer in this country. The Company offers every weaver and knitter expert advice on any rayon problem. Just address, The Viscose Company, 171 Madison Avenue, New York City.

Crown Brand Rayon Yarns are available in cones of one and a half pounds, three pounds, and larger. Crown Brand Rayon Yarns on cones come to you carefully inspected in the skein before processing.

■

All types of warps are given minute care and inspection in the processing of Crown Brand Rayon Yarns.

in support of research. Throughout the entire fiscal year 71 industrial fellowships, requiring the services of 209 full-time research men, were in operation.

Stronger Spun Rayons in England

MANCHESTER, ENGLAND. — Considerable interest is being shown in the new staple fiber which is being produced by the Lilienfeld process at the works of the Nuera Artificial Silk Co., St. Helens, Lancashire. On account of its increased strength, this fiber, which as yet is only being turned out in small quantities, is believed to have big possibilities. The fiber is at present being tried out by a branch of the Fine Cotton Spinners Association, by several other important Lancashire spinning firms and by the spun silk industry of Brighouse. The resulting yarns are said to be as strong as Egyptian cotton when dry and are much stronger than ordinary rayon when wet.

Staple fiber is being used increasingly for the manufacture of yarns for weaving into 100% spun-rayon lingerie fabrics. The use of Nuera "Tenasco" staple fiber is said to result in the same softness of handle, and in addition imparts a greatly increased strength. The yarn is still rather expensive, selling in England at about $1.50 per lb. on the beam. The main line of development appears to be for lingerie fabrics, both woven and knitted, and for dress goods. Nothing definite is known as to whether Courtaulds is making a staple fiber by the Lilienfeld process, but this is believed to be the case. In continuous-filament yarns the Nuera Company has now started to produce "Tenasco" in 30 denier with 30 filaments.

Durene to Have Booth at Knitting Arts Show

The Durene Association of America will occupy booth 87 at the Knitting Arts Exhibition at The Commercial Museum in Philadelphia, May 12 to 16. Representatives of the Association present will include E. L. Starr, director-treasurer; Miss Kathryn I. Day, fashion counsel; Miss Emma Lou Fetta, publicity manager; and Miss Grace Walton, educational speaker. A special Durene afternoon is to be a feature of the convention. John Nash McCullaugh, managing director of the National Association of Hosiery and Underwear Manufacturers, E. L. Starr, Miss Day, and others will speak. Products to be exhibited will include Durene yarns, woven and knitted fabrics such as hosiery and underwear, upholstery, velveteen, elastic webbing, embroidered batiste, embroidered shantung, embroidered marquisette, and embroidered linen, sheetings, men's wear, shirtings, and knitted outer apparel.

Cotton Yarn Demand Unimproved

Specifications On Old Contracts Needed

PHILADELPHIA.

WITH the exception of a continued fair to good request for mercerized yarns there is little activity in cotton yarns, this applying to carded and combed weaving and knitting. Local houses are finding it difficult to obtain delivery specifications on old contracts, and several are devoting the major portion of their time to this end of their business rather than to securing new contracts of size.

The present quarter has been the dullest that yarn houses here have experienced for many years, and indications at present are that active trading will not get under way for some weeks ahead. Dealers would first be pleased to receive better shipping instructions on their present contracts, many of which date back to the first of this year and upon which many mills have refused to take specified shipments.

KNITTERS NEED BUSINESS

One of the most disappointing aspects of the market during the last three months has been lack of good business with up-State underwear manufacturers. Spinners of high-grade carded qualities have a fair volume of business on their books, but are finding specifications small. Knitters, although many work on light-weight goods the year around, will soon turn the major portion of their equipment over to production of medium-weight underwear.

Weavers have been taking small lots which have been wanted for quick shipment, but the total volume has been small, equal only to trading during the first three months of March, which were poor with most selling houses. Prices have held as firmly as cotton during the week; there has been little change in quotations during the last two weeks and price-cutting has been slightly less conspicuous than previously.

MERCERIZED YARN SALES

Several in the trade have taken exception to the statement made in these columns last week to the effect that approximately 8,000,000 lb. of mercerized yarns had been sold during the last three weeks by all processors, both members and non-members of the Durene Association. Indications are, however, that this figure was not far wrong. Well-informed factors in this branch of the market, in checking over totals, arrive at the conclusion in the absence of definite figures, that between 5,000,000 and 8,000,000 lb., have been accounted for, with later figures possibly going up to the 8,000,000 lb. mark.

Last October about 12,000,000 lb. of mercerized was sold within a short space of time in the last buying wave, and these figures show that the last three weeks have seen the placing of at least half that amount. Last October knitters were much busier than at present, which accounts for the smaller total that has been sold this spring. These contracts call for delivery during the next six months or longer. Non-members of the association have been selling at lower prices than others, according to reports, one concern having been reported selling 750,000 lb. at low prices for delivery in the South.

Prices of mercerized yarns have now been advanced to the 80c. level for 60s-2, and bulk of the buying is over for the present time. Mercerizers now have business in hand to run them for several months, and they are now receiving specifications on these orders. There has been a lack of interest in combed peelers although it is probable that additional yarn will have to be bought by the processors when deliveries begin on their recently booked orders.

●

BOSTON.—The week in cotton yarns has not been featured by any increase in volume of buying, but the market, less under the influence of disturbing events, has attained a stolidity of temperament tinged slightly with optimism. The general yarn price level seems likely to hold firmly on a general average at or near the low March basis. Spinners are unwilling to do much business on this level except on small lots for immediate delivery and any discussion of forward business results in higher asking prices being named more in harmony with current replacement cost of cotton.

There has been but little improvement in volume of orders actually placed, though buying interest has broadened, as is shown by a wider inquiry covering most of the list. Coarse and medium counts dominate the business; combed yarns are on the whole firmly established but carded yarn rates are less firm. In view of the practical certainty that a 7c. duty will be placed on foreign staple cotton there is a growing interest in high-grade yarns spun from Egyptian cotton. Higher prices are predicted in the near future.

●

CHARLOTTE, N. C.—Reports at the Charlotte-Gastonia yarn center this week indicate that carded qualities have been suffering from chronic inertia of the worst kind, while combed yarns were slightly less apathetic. Some activity was observed among the mercerizing twist yarns, but there was nothing in the situation to justify any general feeling of optimism.

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DU PONT Rayon colors have been developed in response to the need for dyestuffs which will minimize the uneven results obtained with many direct colors, caused by the varying affinity of rayon for dyestuffs. Their outstanding characteristics are excellent dyeing quality and the evenness of the shades obtained.

These colors can be used on both skeins and pieces.

Let du Pont technical service help you secure the proper selection of colors for each need . . . and level dyeing for all of them.

These colors are suitable for either plain or discharge patterns:

Du Pont Rayon Brown G	Du Pont Rayon Black B
Du Pont Rayon Brown M	Pontamine Fast Yellow 4 GL
Du Pont Rayon Bordeaux B	Pontamine Yellow CH
Du Pont Rayon Bordeaux 3 B	Pontamine Orange R
Du Pont Rayon Violet 4 R	Pontamine Scarlet B
Du Pont Rayon Violet 3 B	Pontamine Fast Red F
Du Pont Rayon Navy Blue N	Setamine Scarlet 3 B
Du Pont Rayon Green 4 B	Pontamine Fast Black LN

Du Pont RAYON DYES

E. I. Du Pont de Nemours & Company, Incorporated, Dyestuffs Dept., Wilmington, Delaware

Combed yarn spinners were said to have made further reductions in their operating schedules, many mills in the Gaston County area now being on a three-day-a-week basis. Stocks in the hands of weavers were said to be comparatively low, and, with no excess of goods in distributing channels, it was felt that increased demand for yarns should be experienced within the next month or six weeks.

Carded qualities were being quoted on a basis of 31½c. for 20s-2, 35c. for 30s-2 and 26c. for 10s single hosiery yarn on cones, average quality. The demand for rayon weaving yarns was said to be holding up fairly well, but little activity was experienced in rayons for the hosiery knitters.

●

NEW YORK—Three cotton yarn sellers prefaced their remarks about the market by saying, "In the so-and-so years that I have been in the cotton yarn trade, I have never seen business so bad as the present." The general comment was to the effect that demand was at an absolute minimum, and that the small amount of inquiry received was for negligible quantities.

Prices are quotably unchanged, but there is not enough interest in evidence to afford a real test. Spinners' quotations are unchanged from the level of the previous week. It is possible to trade in isolated instances, but even then the spread between buyers' and spinners' ideas is too great to result in an order.

One commission merchant told of a bid for 2,000 lb. of 20s-2 at 28c., citing this as an example of the general run of inquiries. It was believed, however, that even this bid would not lie around very long before somebody would accept it. From the talk, one receives the impression that there has not been much curtailment in carded yarn plants. Stocks seem to be plentiful, as sellers tell of orders calling for prompt delivery being shipped out the day received, or the following day at the latest. Ordinarily, this delivery would take ten days to two weeks to leave the mill.

In the combed end, the interest in Sak. yarns has kept up, but there has not been much actual business placed. All users of Sak. yarn are keeping in close touch with the market in the expectancy of a price readjustment to counterbalance the proposed tariff. No such advance has taken place, although sellers believe that it will.

Worsted Yarn Prices More Stable

Evidence of Less Price Cutting Stimulates Buyer Confidence

PHILADELPHIA.

ALTHOUGH volume of new business booked during the last two weeks has been curtailed by the holidays, outerwear yarn spinners report that they are finding demand slightly more active and indications are this will broaden further during the next few weeks. They find stocks of goods in jobbers' and retailers' hands are small and warmer weather is expected to make duplicate ordering of spring merchandise necessary, which in turn will be felt by spinners.

Business booked by spinners during the last two weeks has sustained this position of stocks in jobbers' hands, manufacturers wanting yarn shipped immediately. Small quantities have been the rule but more buyers have been in the market and more varied lines have been interested. Bathing-suit interest leads at present, with a fair demand also reported by spinners catering to the infant's trade.

PRICES HOLD STEADY

Larger spinners are adhering to their former price list which is on the basis of $1.17½ for 2-20s, 50s but there are several smaller factors who are offering these counts on the basis of $1.15 or slightly lower, there being reports of small sales low as $1.12½. Spinners of single knitting counts are holding steady at the former level, majority asking $1.25 for 15s, 50s.

Spinners' margins in previous years have been larger on single counts due to the fact fewer spinners were in position to turn out these counts, but this year competition is keen and opinion is that profit margins for spinners are at least as small in single knitting counts as in the two-ply. Finer numbers are being specified in the single yarn field, 18s being the most widely used this year comparing with 15s formerly used most extensively.

A limited number of bathing-suit manufacturers have used as fine as 2-40s, in a 64s grade, this season but spinners state this demand has not expanded into large volume as yet, many claiming that such a fabric is more difficult to knit properly than a fabric manufactured from single counts spun from coarser wool. There has been a larger volume of 2-20s spun from fine grade sold this season than last, both light-weight sweaters and infant's wear taking it.

In men's wear field there has been little change and manufacturers have not succeeded in booking substantial orders during the last two weeks. These mills are taking yarn at a slightly more active rate on old orders but a majority of spinners of mixtures assert they have not sold large amounts during the last week. Prices are holding steady and unchanged, French spinners in most instances refusing to sell 2-30s, 64s, mixes, for less than $1.75.

YARNS ON SOUND BASIS

Price-cutting in both weaving and knitting counts has been less prevalent and indications are spinners will refuse to accumulate large stocks to burden themselves with until demand improves. This being the case yarns are likely to follow wool closely in price trend and for this reason majority opinion is that yarns are not apt to reach appreciably lower levels in the near future. More manufacturers are coming to feel that prices are attractive and the trade looks for a larger volume of business to develop in a short time.

◆Thrown Yarn Again Declines

FAILURE of raw silk to rally had a depressing effect on thrown yarn, and the latter registered further weakness this week. Thrown yarn prices dropped 5c., and even this reduction did not serve to spur buying to any noticeable degree. Broadsilk mills placed some small orders for organzines and crepes, but this business when split up among throwsters was practically negligible. Weavers were uncertain regarding their own prospects, and were averse to stocking up on yarns.

The broadsilk industry itself is in not too satisfactory a position, as current buying is restricted largely to sheers and shantungs; fabric production has not been curtailed, but mills are cautious. The current period, usually a period of big fabric activity in all lines, is too hesitant this year to cause weavers to place extensive contracts on yarn. Throwsters were waiting for real spring weather to encourage broadsilk movement in the belief that such would result in a livelier call for yarn.

Thrown yarn stocks are accumulating steadily, despite the careful curtailment at the mill end. The surplus is not large, and a couple of weeks of steady buying would soon reduce it to almost normal proportions.

◆Good Spun Silk Outlook

DEMAND for spun silk yarn eased off slightly, but the general market tone was very satisfactory. Prices are steady with no prospects of change. Promotion of "Sports Silk Week" was credited by spinners this week with being largely responsible for the industry's good spring business. The spun yarn industry is perhaps the only division of the silk industry that is in a happy mood at present. Spinners are not 100% satisfied with their turnover.

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triethanolamine is a weak organic base capable of forming soaps with all fatty acids. It possesses a pH of 10.2 while its soaps have a value of 8.6.

triethanolamine soaps buffer the alkalinity of water solutions of the common soaps. These mixtures are more neutral than are either of the soaps alone.

The use of a slight excess of Triethanolamine in a mixture of its soap with a sodium or potassium base soap produces a product of distinctive properties.

1 Its neutrality insures a softer, more lofty finish on all materials.

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triethanolamine soaps are excellent emulsifying agents for vegetable or mineral oils and these emulsions have many applications in the textile field. This subject is too broad for adequate treatment here and we have therefore prepared a booklet describing the preparation and properties of many Triethanolamine emulsions that are industrially important. Copies of this booklet will gladly be sent upon request.

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Business has been very good for three months, but the margin of profit is not adequate, they claim.

Tightness of waste prices brought a pinch and cut into an already close profit balance. However, the trade is not disposed to protest overmuch. The fact that the industry can do a good business in a period so generally hesitant and dubious as the first quarter, has made spinners generally very much encouraged. Incidentally it has pretty well "sold" them on the importance of promotion, as they are coming more and more to the belief that without the "Sports Silk Week" campaign spun yarn sales—and prices too, maybe—would have been considerably off, this spring.

It is expected that once manufacturers feel the real impetus of this drive, they be in the market with reorders for yarn. Shantung fabrics have been particularly well received, and considerable duplicate business in 60s 2 ply is looked for as a result. The current lull has not discouraged spinners to any extent. It is considered normal. May is expected to bring much repeat business, and some firms look for this call to continue into June.

There is no question of the satisfactory condition of the spun silk industry at the moment. One important firm producing both spun yarn and broadgoods was reported to be running its spinning mills on a three shift basis and consuming all its own yarn. This is an exception, of course, but the general tone is very firm.

New Price Aids Rayon Market

80c. Rate for Inferiors Seen as Move Toward Stabilization

THERE were definite indications this week of an improved condition in the rayon yarn market. This was manifest, not so much in increased buying as in a clearing-up of the confusion regarding the relative prices of standard and sub-standard yarns. Numerous firms have indicated during the last ten days that they will sell inferior yarns at an average price of 80c. Some companies are in favor of reducing that figure to 60c., but it is not likely that any step in that direction will be taken, until producers have a chance to see how the 80c. arrangement works out.

For several months, inferior yarns have been a source of much dissatisfaction in the market. There was no average price, and this latitude permitted various companies to unofficially cut the price of standard yarns by mixing them with sub-standard and selling below list. In some instances, stocks of 100% standard were sold as inferior, at prices from 90c. up.

Seen as Step Forward

It is still too early to gauge the effect of the new move on prices generally, but producers are confident that it will be a step toward ridding the market of an unhealthy practice. Actually there is no abnormal quantity of inferior yarn on the market. The apparent flood of this stock offered to weavers during recent weeks at prices below list, was not representative of inferior yarn output; the lull in demand and desire to effect turnover caused certain producers, mostly smaller firms, to sell much standard yarn as inferior.

One of the features of the 80c. price is that it will set a definite line of demarcation between standard and substandard. Inferior yarn usually sells to braid, tassel and related industries. When certain producers began mining good quality yarn with poor grade and selling it at the low figure, much of this was bought by weavers. The result was a greatly increased output of inferior rayon broad goods which tended to conflict with the high grade rayon cloths produced by standard mills.

Makes Inferior Cloth

One factor, discussing this point, commented: "As filling yarn, the inferior rayon is a gambling proposition. Certain firms have used it as warp, and the result is scarcely a credit to the rayon industry. Weavers will not be so inclined to use inferior yarn now because, with the price in the 80c. range, the yarn they get will be actually inferior—it will be totally unsuited to weaving of even moderate quality broad goods. This will be a benefit to the weavers who use standard rayon yarn, because it will put a premium on quality fabrics. Selling mixed quality at less than market prices gave an unfair advantage to those who bought this stock."

Whether the new move will completely stabilize the prices of first and second quality standard yarn is problematical. Naturally it will be influential in this direction, as consuming industries will know better where they stand, with respect to the competition of products made from sub-standard stocks. Numerous large and small producers were questioned this week, and they insisted that their firsts and seconds were selling at list prices. Even if those claims were discounted somewhat, it still appears that prices of high quality yarns are firmer than they have been. There is no rush of business at any end, however, and the temptation to offer inducement is strong. The most constructive element at present is the producers' curtailment policy which has done much to strengthen the market by reducing the surplus stocks.

◆Cotton Waste Output Shows Some Decrease

Boston.

COTTON waste consumers of spinnable materials are influenced by the situation in the major industry, the price and prospects of cotton as well as its consumption. In the case of waste materials finding an outlet in other industries other influences prevail. Cotton consumption of more than 504,000 bales in March showed on the face of the report an increase in consumption over February. As a matter of fact, however, the consumption of cotton and of necessity the output of wastes has been declining steadily for year to date at a rate of about 1,000 bales per day. As waste output of all kinds including picker in the dirt is about 15% of the cotton going through the mill it can be estimated roughly that the output of cotton waste has been decreasing 150 bales per day since the first of the year. Comber is not included in the 15% figure, being a by-product of the fine cotton goods industry and the amount produced is dependent on the activity or otherwise of this branch of manufacturing.

Peeler strips are more active and there is some selling of Sak. strips around 95% of spot. Dealers in thread waste are far from satisfied with the prices at which they are compelled to sell, but the volume of business has been a little larger. Picker and fly continue very draggy, actual sales being smaller than previous weeks. The entire line of wastes is on a lower level than it ought to be with cotton around 16½c.

◆Threads and Rags in Bond Await Tariff

Boston.

THE wool waste market is expecting a distinct turn for the better when the interest in goods and in wool becomes directed to the need of heavyweight fabrics for next fall and winter. Supplies of all kinds of wastes from the worsted division are running in excess of the consumption of these commodities by the woolen division, and under these circumstances any immediate change for the better seems improbable. In the meanwhile the worsted wastes that are in relatively small supply are holding firmly to recent levels while other wastes, such as cards and threads, being in good supply are irregular in price, operations favoring the buyer.

The thread section of the market occasions the most concern. Boston has been importing both crossbred and merino spinning wastes for many weeks, these speculative operations being based upon low prices in the foreign markets and the strong probability that the new tariff will place much higher duties on these materials.

The Bradford market reports a more

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Sulphur Monochloride
Sulphur Dichloride
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Plant -- Tacoma, Washington
Sales Office -- Tacoma, Washington

stable position in all wastes and a growing belief that the long continued decline has now been arrested and that an up-turn will be seen when mill demand becomes more active. Some large stocks have been liquidated at heavy sacrifices.

Wool Rags in Bond

All kinds of rags both domestic and foreign are low priced and in some cases recently there have been sales of foreign knit stocks, duty paid, at prices so low as to indicate a large loss on the part of sellers. There are at this time consignments of rags on the high seas but where actual purchases have been made there is a clause in the purchase to the effect that if the materials fail to arrive in the United States before the new tariff becomes law they will be returned. It may not be generally understood in the case of rags now in bond that the old duty of 7½c. must be paid prior to the passage of the new tariff and that any over-sight in this matter will mean that the rags will be assessed at the new high duty.

◆Noil Output Larger Than Consumption

Boston.

THE Boston noil market is in the main sluggish, but featured by a larger dealer interest in good ¼-blood noils which are not to be found in large stock. The general range of prices on fine noils is unchanged, ranging from 50c. on a defective fine up to possibly 65c. on a choice recombed fine noil. A fair bulk of noils have been brought in from the foreign markets in anticipation of the tariff, and, were the woolen branch in anything like a normal manufacturing position, tangible results in the form of profits on exports might seem likely. The mill call for noils continues so restricted and the total accumulation of these commodities so large, that the best that can be expected is some mild rally in prices when and if mill buying shows expansion.

Foreign Noil Situation

In the Bradford market the United States has been taking a quantity of fine noils at fair prices and some further spurt may be seen in view of the moral certainty of a higher noil tariff. In the French markets activity is below normal but low grade clean noils and choice fine short noils are showing some interest. In the Holland market there is a demand for Australian and Montevideo fine noil, also for short dry French combed noil. In the German market defective noils in all grades are very quiet but clean merino noils half blood to fine are in fair demand on the low level of prices now reached. Fine short noils in the German market which opened the year at 53c. are now quoted at 34c.; quarter blood B. A. 50s dry combed opened the year at 24c. and are now down to 16c.

◆Rayon Waste Prices Nominal

RAYON waste passed another week of sluggish business. Prices were slightly weaker, if anything, though actually the market was so quiet that price reduction had ceased to serve as an inducement to buying. It was impossible this week to get dealers to quote prices; all specified rates are nominal.

Garnetters made a few inquiries, and dealers were hopeful that this might be followed by orders. Few orders were being placed, and these were all small. It seems unlikely that rayon waste will register any real recovery before the summer. The big question now before the trade is whether the warm months will bring their usual quiet spell; if they do, then the first half of 1930 will end most unsatisfactory.

The only healthy element is that the available surplus stocks are growing at a comparatively slow rate. Imports have been very light, and domestic output of waste is never large. This gives the trade some encouragement, as it means that any real pick-up in demand would soon clear current surplus and bring about a prompt strengthening.

Cotton Futures Irregular

Spot Demand Restricted by Near-Month Premiums

THE evening-up of the near-month situation in preparation for the first May notices of Friday was trading feature of the week in New York cotton futures market. Evidently the unprotected short interest in May and July had pretty well covered before the Easter holidays.

When the market reopened on Monday, there was comparatively little demand for the near months, and prices weakened under realizing by scattering or so-called "trailing" longs. As the near months eased, there was some selling of new crop positions on a belief that crop preparations were making generally good progress except for drouthy sections of the Southwest. Reports of rains in Oklahoma encouraged this selling, while the tendency to scale down estimates of the probable reduction in acreage may have played some part in the action of the market. The discounts as compared with the old crop months, however, brought in some trade buying of the new crop on the declines, and differences between May and the later deliveries narrowed to some extent. Meanwhile the May premium was sufficiently well maintained to indicate that accumulating evidences of preparations to deliver cotton on May contracts had not weakened the position of the leading long interest and reactions early in the week were followed by renewed firmness as the scattering near month realizing or liquidation subsided.

Stocks of certificated cotton at the designated delivery points have shown an increase of over 90,000 bales since the middle of March. According to Wednesday's reports, they amounted to 284,000 bales, and it was generally expected that they would be in the neighborhood of 300,000 bales with something over 100,000 bales in New York before the May notices were issued. Additional supplies are expected here before the end of next month, but it is anticipated that the cotton represented by the contracts believed to be held here for the account of the "cooperatives" will be promptly taken up. Of course, the certificated stock at the designated New York delivery points may not all be available for delivery on New York contracts, as some cotton is likely to be needed for the protection of May shorts in the New Orleans or Chicago markets.

Spot Business Quiet

The maintenance of the near-month premium has evidently had an almost paralyzing effect on business in spot cotton, except for that incident to the preparations made for delivery on contract. Sales in the leading spot markets have been very light, and near month premiums usually have a tendency to restrict end-season distribution to a minimum of actual requirements.

Political disturbances and boycotts in India are clouds on the Manchester horizon, while depression is reported in the Japanese textile industry with labor troubles threatened, and it is getting to be a question whether the export movement which is now about a million bales behind last year's will pull up on last year's figures between now and the end of the season. Some traders feel that liberal estimates would place exports at about 7,100,000 bales including linters for the season as a whole, and home consumption of American cotton at about 6,100,000. World's consumption would be expected somewhat in excess of the combined figures at the expense of stocks either at counted points or the mills abroad.

Acre Estimates Lower

The advance in price probably accounts for the tendency to scale down estimates of the prospective reduction in acreage. According to a private report published here during the week,

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The remarkable effectiveness of Trichlorethylene as a cleaning agent is used to advantage in "spotting out." Through its use much yardage can be salvaged, as spots, soap marks, grease and other stains are readily removable. And there is no danger of damaging fabrics or colors.

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present prospects do not point to a decrease of more than 2.6%. Ideas expressed by local traders as to curtailment range from about 2 to 6% and probably average somewhere between 3 and 5%.

Rather an interesting development of last week was a sharp increase in Liverpool spot sales attributed to purchases of Egyptian cotton in that market for prompt shipment to the United States in anticipation of the proposed 7c. import duty.

●

MEMPHIS, TENN.—Demand for cotton in this market is at such a low ebb and business is on such an uneven keel that basis is difficult to determine. While the staple basis is quoted officially 50 to 125 points lower than a week ago, the quotation is nominal; there is no distinct selling pressure, although holders are anxious, while buyers are out of the market and exhibit only mild interest even when asked prices seem to involve little risk.

Unsold stocks in hands of factors, unreported for the week owing to the holidays, are not burdensome, approximating 50,000 bales; but lack of interest on the part of buyers and fear of lower prices later on have put holders in a cheerless mood.

Something in the nature of an indignation meeting was held by the local cotton exchange early in the week, and it now appears probable that vigorous representations against some operations of the Farm Relief Board will be made through the American Cotton Shippers' Association soon to meet here. The situation is quite generally described as ruinous, and most of the blame is laid upon the Farm Board and its subsidiaries.

The outward movement continues heavy, amounting to 28,760 bales during the week, against 25,535 bales last year and 16,910 bales the year before; however the total stock is still considerably in excess of 300,000 bales, a figure approximating the peak of an average season. There is scattered hope here that the situation will clear up somewhat after the first notice day on the May contract, but such optimism is decidedly in the minority.

Weather conditions during the week were favorable throughout most of the cotton belt, except in western Oklahoma where the drouthy condition became more serious.

●

BOSTON.—Some liquidation of old crop months has occurred during the week, reducing the disturbing spread between old and new crop quotations. The basis is irregular but a slightly downward trend is in evidence. The Farm Board succeeded in large part in forcing upward May and July positions to a level where cooperatives could be lifted out of the hole made by the slump and the Farm Board subsidiary could take over their contracts without a loss. Cotton manufacturers, it is believed, have suffered huge losses through the distortion of differences and the forcing of near months to premiums, and are likely to curtail heavily to avoid using high-priced old-crop cotton.

The demand has been spotty this week, with extra-staple prices steady but only small business transacted. In the Boston market there has been some activity in longer types, although the quotations on these have been affected by the downward trend in basis. No large volume of extra-long staple is offered, but there is little demand for amount available.

OLD CROP SITUATION ARTIFICIAL

The situation in old-crop months is largely artificial, and the major part of the trade appears to be more anxious to close out present commitments than to enter into new ones. This attitude is likely to prevail until first notice day on May contracts, which falls on April 25. Then the cooperatives, supported as they are by the Federal Farm Board, must either take delivery of all cotton tendered on May, or must transfer their long holdings in this option or to some one further ahead.

From Alexandria 4,000 bales arrived during the week. The practical certainty that a 7c. duty will be imposed on Egyptians has resulted in a larger inquiry for both Sak. and Uppers, the Sak. around 30½c. for medium grade and the Uppers 23 to 23½. Pima, the only American cotton competitive with Sak., has not yet been affected, but higher prices are likely to follow demand.

Downward Wool Trend Unchecked

Slow Goods Market and New Clip Operations Postpone Rally

BOSTON.

THE wool market is on the low price level of the year and there is nothing happening to bring any rally in prices which on the whole might not be considered particularly desirable at a time when the trade and the wool pool are endeavoring to tie up as much as possible of the 1930 wool clip. There was interesting discussion of the proposal for a Wool Exchange on tops.

The situation from some angles is more promising than it appears on the surface. In the opinion of one large mill organization which has the reputation of being particularly shrewd in its purchasing operations "the market now seems to have turned and it is a fair assumption that it will not go lower and that improvement will follow."

MANUFACTURERS AND FARM BOARD

The recent conference between wool manufacturers, the Federal Farm Board and the National Wool Marketing Association seemed to suggest on the face of it that something ominous was brewing for the independent wool trade. It can be said, however, that there was no discussion of any program of cooperation between manufacturers and cooperatives that might possibly contract very seriously the old-time wool trade. Manufacturers went to the conference with the idea of obtaining information regarding the policies of the Farm Board and the big pool, and there was at no time any thought of agreement or arrangement for concerted wool buying by the mills.

The trade is not excited in the least over the lifting of the wool duty from 31c. to 34c. clean content. In view of general conditions at home and abroad the rise in the wool duty is practically negligible.

FOREIGN WOOL SITUATION

Foreign opinion is a little more favorable. A much larger proportion of the London catalog was disposed of than anyone expected. In Australia the selling brokers are adopting a more confident attitude and have declared that every bale of the clip will be offered before the end of July. The brokers believe that they will entirely dispose of the clip before the next season opens. This, however, can hardly be achieved unless wool users in Europe adopt a policy of stock replenishment on a more substantial scale.

Raw Silk Prices Nominal

Market Ends Bad Week in Very Poor Position

EASTER came and went, with no improvement in the raw silk situation. Prices, which have been nominal for some weeks, softened yet further, in the face of a poor buying market. Broadsilk mills showed little interest. Only the most essential needs were filled. All orders were small and restricted to spot shipments. Importers said they looked for some improvement at the hosiery end before long. Hosiery mills in various centers were reported to be increasing output, and a few firms have placed small orders. The general hosiery situation continues weak, but the makers of standard brand lines

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note a more confident attitude on the part of both jobbers and retailers. The mills making standard brand hosiery are expected to place raw silk contracts soon.

Pick-Up to Be Slow

It is increasingly clear, however, that raw silk will not register any prompt pick-up. Whatever improvement develops before summer will be moderate. The actual prospects for the warm months are uncertain and even the most far-sighted importers hesitated to offer any forecasts. There is a possibility, in view of the cool spring and poor Easter business, that broad-silks may continue active later into summer than usual this year, in which event raw silk dealers would benefit accordingly. Several representatives of both branches of the industry were of this opinion, though they qualified it with the comment that the whole outlook is doubtful.

On the Silk Exchange

The week was spotty throughout. Futures opened soft on April 16, but developed a slight firmness which carried through to the next day. Business was moderately active. The Exchange was closed Friday and Saturday, April 18 and 19 as Easter observance and uptown business was spotty. Nearby months were steady but inactive. Prices showed new weakness on opening April 21, and dropped to new low levels later in the day. A further depression was noted April 22, bringing futures to low levels never before reached on the Exchange.

◆ Active Reordering of Bathing-Suits

BATHING-SUIT demand, which has eased off for a couple of weeks, has picked up again and there was considerable duplicate business placed within the past ten days. Knitters found all lines moving steadily; there was the usual stress on sunsuits, and several new colors that were introduced in the women's lines, found good response. These colors are all in the pastel range. Confidence was expressed regarding the bathing-suit outlook, though it was felt that continued cool weather may bring a set-back.

The big need in outerwear is for a warm spell of about ten days, sufficient to spur retailers and jobbers to place their duplicate business. Numerous stores reordered bathing-suits this week, and much of the business was for immediate shipment. At present, certain bathing-suit mills are able to handle spot orders, but any real pick-up in buying would change the situation. It is a foregone conclusion that, giving a spell of seasonable weather to encourage orders, the mills would be unable to handle either spot or nearby contracts. Most of the larger plants are solidly booked; the early business was unusually heavy, and if end-May brings its normal rush, the retailer who failed to place his duplicate order will be obliged to wait until well into summer for shipment.

Fancy sweaters also are waiting a warm spell before registering real activity, though there was some fair business written during the week. Polo shirts, especially cottons and those retailing at $1, were in steady call. All colors were selling in polos, notably the reds and the pastels. Sweater demand is not what had been expected and this is laid to the prevailing cool weather. Heavyweight sweaters continued slow, and there was little prospect of any real activity in this merchandise before mid-summer.

Underwear Demand Spotty

Medium and Lightweight Lines Have Uneven Week

MEDIUM and lightweights moved spottily in the knitted underwear industry. Balbriggans were slightly behind last year, but mills were hopeful that the next few weeks might stimulate demand; these lines have had a fair spring, the one big disappointment being the Easter business which was decidedly below par. Balbriggan mills were producing cautiously, and thanks to this foresight there is no great surplus on the market; prices were steady.

Rayons were in a better position, though here too demand was less than usual. Nainsooks were quiet. The only line showing any movement in lightweights was the cottons, all of which sold steadily during the week. Athletic shirts and shorts were being actively sought both by jobbers and retailers; most orders were small and spot, but they aggregated a fair total. This business was particularly welcomed by mills producing both lights and heavies, as it served to compensate for the lack of business in the latter.

Weather a Factor

Weather continued an important factor. In the North and East, the temperature has kept at levels low enough to discourage distributors from active buying. Stocks in the hands of jobbers and stores are small, and as no great surplus is available, a warm spell which would spur buying, would soon create a firm market in lightweights. This also would have a good psychological effect on heavies, as buyers are slow to place future underwear business until they see the current lines moving.

Heavyweights were slow all week. An inquiry among a cross-section of heavyweight underwear producers indicated an unsatisfactory situation. Knitters were almost unanimous in reporting a poor spring. The tendency to offer inducements has been pronounced, though there has been little actual price-cutting. One important company is still taking business at the low first period prices, though others raised their prices to "second period" figures on April 1.

No General Satisfaction

Some of the large mills claim a satisfactory spring, but a survey indicates this is not general. Not a few of these same large mills have been exerting special effort to get business, and a customer who asked price privileges would not have to wait long to find someone to take him up. One representative factor discussing heavyweights said the entire line is quiet and has been quiet for four weeks, spring contracts are below normal, and the whole situation is unsatisfactory. This is true, in large part, at least, of the whole heavyweight market.

Hosiery Come-Back Will Be Slow

Distress Stocks Still Clearing, and Prices Continue Weak

THE present weakness in the women's full-fashioned hosiery market is due, not to production having reached the saturation point, but to the failure of mills to anticipate the current lull and to curtail accordingly. This opinion was expressed to Textile World this week, by the president of an important southern company. The executive said his company was in a firm position because they had foreseen the lull and had curtailed output immediately after the market crash last fall. He scoffed at the theory that overproduction was the cause, and said the industry would steady itself once the general industrial situation became steady.

No Quick Improvement

The outlook this week was such as to offer little prospect of an early improvement. The continued pressure among heavily indebted mills to clear at any price in order to pay their silk creditors, and the failure of prices to show any real signs of rallying, make it clearly evident that the return to normal will be

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a slow process. Buying of women's full-fashioned was uneven during the week. Mills found it difficult to compete with the great quantities of distress merchandise still on the market. The better known companies producing standard brand hosiery were able to hold to list prices, though sales executives of these mills said it meant turning down much-needed business. Generally speaking, full-fashioned hosiery is having hard sledding. Easter business, which it had been hoped would help things, proved a disappointment; there was a flurry of last-minute orders for summer colors, but the prevailing wet cold weather served effectively to discourage buyers from any real activity.

Half-hose continued spotty, and a buyer's market prevailed. One mill was reported to be selling $1.45 half hose at $1.25, almost cost price. The keenest competition was in the low-price goods; there was plenty of buying done at that end, but all was on a bargain basis. Half-hose retailing at 50c. moved fairly well, and there also was a call for the three pair for a dollar line.

The cold weather has kept seamless hosiery from showing its expected activity; the "bare leg" lines are nearly four weeks behind last year in sales. However, this is not considered so serious, as the "bare leg" hosiery is essentially a summer proposition, and it is recognized that a sudden change toward warm weather might send the "bare leg" demand up like a sky rocket.

Light Chiffons Active

Approach of Summer Dulls Interest in Dark Grounds

RECENT price reductions have cleared many of the spring broad-silk prints, but a limited number of these lines were still being sold at list prices, this week. Current demand emphasized crepes, chiffons and shantungs. One cloth that has been particularly active is a pin dot pure dye crepe; this number has sold steadily for weeks and orders are in excess of output, one mill reported. An all-summer call for this line was forecast. The approach of warmer weather has slackened the call for dark chiffons, and light colors have increased their activity in proportion. Pastel chiffons were firm all week; orders though small were numerous and steady.

Dark Chiffons Reduced

Numerous attractive dark-ground chiffons, including some which were best-sellers a month ago, now are offered at bargain prices. The $1.75 lines have been reduced to $1 in many instances, stimulating buying.

Light chiffon prints were moving regularly at list prices. Certain important mills were short of chiffon gray goods. In a few cases immediate delivery is not promised, but for the most part production is fully abreast of sales.

Shantungs Active

The whole range of shantung plains was turning to high colors. White, from $1.25 to $1.75, and the preference was turning to high colors. White, cream, blue, pink, yellow and rose were among the most popular shades. Yellow was especially favored; one number a soft maize yellow, was a best-seller in its class. Cutters and piece goods buyers were pressing mills for spot shipment of shantungs. At present, stocks are fair, and mills have no difficulty in making deliveries. The strong current call for shantungs ties up with the observance of "Sport Silk Week" in which many manufacturers are cooperating.

◆Tailors-to-the-Trade Wool Goods Buyers

THE end of the Easter period and the activity of the tailors-to-the-trade are in the forefront of the present wool goods market. While the retail sales of clothing during Easter were below those of last year, the average was a bit higher than generally expected. This is a source of comfort to many, and will prove helpful in clearing up doubtful credits.

Close to normal business has been placed by the tailors-to-the-trade. The instances where individual houses have placed smaller requirements than last year have been balanced by those who ordered in excess of 1929. Business in this field has cropped up where least expected, according to sellers. Firms that had been counted on to place substantial business fell below expectations, while others, not considered heavy purchasers, came in for large amounts. The bulk of the ordering has been for spring duplicates, but several firms have placed initial requirements for fall. Last week the Chicago tailors, more inclined to cautiousness than those in Cincinnati, showed an increased disposition to buy.

Other Lines Slow

Other clothing trades are less favorably situated. Mid-western jobbers and clothiers are not purchasing except for some limited business on tweeds and topcoatings. These same people are carrying over fairly substantial stocks, especially of overcoatings, sellers say. A few of the manufacturing retailers have started operations, but as a whole they do not feel over cheerful.

Several mill men expressed the opinion that spring duplicates will keep coming in next month and possibly well into June. The few clothing manufacturers who had their men on the road last week have been placing additional orders of good size, it was mentioned.

Print Cloth Curtailment Likely

Heavy Losses Will Force Mills Into Action

THE continued unfavorable price spread between cotton and gray goods is a source of increasing concern to sellers. This is especially noticeable in print cloths, although irregularity in this group has had a similar effect on the sheetings. The 64x60s are selling at 6c., with cotton practically 2c. a pound higher than it was in March, when the 6c. price prevailed in the 5.35 yd. goods. Goods have been sold by most centers in sufficient quantity to take care of production, but there are no signs of buying in volume large enough to effect an improvement. The longer this status is prolonged, the more mills lose heart and the greater is the necessity for many to sell goods at ruinous prices.

Action Expected

Due to this, curtailment talk is prevalent, and it is expected that decisive action will be taken. Regardless of any meetings on the subject, it is commonly believed that the economics of the situation will force mills into taking corrective measures. A prominent seller stated that the market was not far off balance. If 30,000,000 yd. were to be taken from production during the next six months, it would give an entirely different aspect to the market. Until such a condition is apparent, buying is not expected to show any change. It is the old case of the tail wagging the dog—a comparatively small amount of surplus merchandise is making the market for the yardage that can be absorbed.

Sales of 80-square percales have kept on at a fair level. While discussing the matter of price, one of the large corporation printers stated that they were able to make a profit on the goods purchased and converted, but showed a loss on the goods woven by their own mills.

Leading denim producers are talking of curtailment, and it was heard that a four day week schedule was to be started by the leading mills.

QUOTATIONS

at close of business, April 23, 1930
Prices cover average qualities unless otherwise stated

Cotton Goods

	April 23	April 16	April 24 1929
PRINT CLOTHS			
27 -in., 64x60, 7.60	4½–4¾c.	4¾c.	5¾c.
38½-in., 64x60, 5.35	6 c.	6 –6¼c.	7½–7⅝c.
39 -in., 68x72, 4.75	6¾–7 c.	6¾–7 c.	8¼– 8½c.
39 -in., 72x76, 4.25	7⅜ 8 c.	8 c.	9½– 9¾c.
39 -in., 80x80, 4.00	8⅛–9 c.	8⅛–9 c.	10⅛–10½c.
BROWN SHEETINGS			
36-in., 56x60, 4.00	7½–7¾c.	7¾–7¾c.	8¼– 8¾c.
36-in., 48x48, 3.00	9 –9¼c.	9 –9¼c.	10½c.
37-in., 48x48, 4.00	6¼–6½c.	6½c.	8¼– 8½c.
PAJAMA CHECKS			
36½-in., 72x80, 4.70	7 –7½c.	7½c.	8½–8¾c.
36½-in., 64x60, 5.75	6¼–6½c.	6½–6¾c.	7⅝–7¾c.
MISCELLANEOUS			
Drills, 37-in., 3 yd	9c.	9c.	11c.
Denims, 2.20	15c.	15c.	17c.
Tickings, 8 oz	18–19½c.	18 –19½c.	22–23½c.
Standard prints	9½c.	9½c.	9c.
Eastern staple ginghams, 27-in	10c.	10c.	10½c.

Cotton Waste

Peeler comber	13½—14
Peeler strips	11½—12½
Sak. comber	11 —12
Choice willowed fly	6 — 6½
Choice willowed picker	5 — 5½
Sak. strips	14 —15
Linters (mill run)	3½ — 4
White spooler (single)	9 —10

Cotton Yarn

CARDED—(Average Quality)
Double carded 2c.–4c. higher according to quality

SINGLE SKEINS OR TUBES—(Warp Twist)

4s to 8s	$0.26½	20s	$0.29½
10s	.27	24s	.31½
12s	.27½	26s	.31½–.32
14s	.28	30s	.34 – .34½
16s	.28½	40s ex. qual.	.46 – .47

TWO-PLY SKEINS AND TUBES

8s-2	$0 26½–.27	26s-2	$0.34
10s-2	.27½	30s-2	.34½–.35
12s-2	.28	36s-2	.40
14s-2	.28½	40s-2	.42 – .43
16s-2	.29	40s-2 hi b'k	.47
20s-2	.29½–.30	50s-2	.51
24s-2	.33	60s-2	.58

SINGLE WARPS

10s	$0.27	24s	$0.32 – .32½
12s	.27½	26s	.33 – .33½
14s	.28	30s	.35½– .36
16s	.28½– .29	40s ex.qual.	.47
20s	.29½– .30		

TWO-PLY WARPS

8s-2	$0.27½	24s-2	$0.33 – .33½
10s-2	.28	26s-2	.34 – .34½
12s-2	.28½	30s-2	.35
14s-2	.29	40s-2 ordin.	.43
16s-2	.29½	50s-2	.51
20s-2	.30	60s-2	.58 – .59

8s-2 and 4-ply skeins and tubes; tinged, 23; white 25; waste 21–22

HOSIERY CONES (Frame Spun)

8s	$0.26	22s	$0.30 –.30½
10s	.26½	24s	.31 –.32
12s	.27	26s	.32 – .33
14s	.27½	30s tying	.33 – .33½
16s	.28	30s reg	.34½–.35
18s	.28½	30s ex. qual.	.37½–.38
20s	.29½	40s	.42

COMBED PEELER—(Average Quality)
WARPS, SKEINS AND CONES

	Merc. Tw.	Wp. Tw.		Merc. Tw.	Wp. Tw.
20s-2	$0.43	$0.44	60s-2	$0.63	$0.64
30s-2	.48½	.49	70s-2	.73	.74
36s-2	.50	.51	80s-2	.85	.86
40s-2	.51	.52	90s-2	1.02	1.08
50s-2	.55	.56	100s-2	1.28	1.33

SINGLES

12s	$0 37½–$0.38	30s	$0.47 –$0.47½
14s	.38 – .38½	38s	.49½– .50
16s	.38½– .39	40s	.51 – .52
18s	.39 – .39½	50s	.55 – .57
20s	.40 – .41	60s	.62 – .63
24s	.42½– .43	70s	.72 – .73
28s	.45½– .46	80s	.84 – .85

MERCERIZED CONES—(Combed, Ungassed)

26s-2	$0.61 –$0.62	90s-2	$1.40 –$1.45
30s-2	.62 – .63	100s-2	1.70 – 1.75
36s-2	.65 – .66	120s-2	2.10 – 2.15
40s-2	.67 – .68	30s	.77 – .80
45s-2	.70 – .72	40s	.82 – .84
50s-2	.72 – .74	50s	.87 – .90
60s-2	.80 – .82	60s	.94 – .99
70s-2	.94 – .97	70s	1.10 – 1.15
80s-2	1.07 – 1.11	80s	1.32 – 1.37

COMBED REVERSE TWIST THREAD YARNS
(Skeins, Tubes or Cones, 2, 3 and 4-Ply)

	Peeler		Sakelarides	
	Average	Best	Average	Best
24s	$0.47–$0.48	$0.58	$0.71	$0.76
30s	.50– .51	.61	.74	.79
36s	.52– .53	.63	.78	.82
40s	.57– .58	.67	.81	.86
45s	.62– .63	.72	.86	.91
50s	.67– .68	.77	.91	.96
60s	.77– .78	.87	1.01	1.06

Cotton Prices and Statistics

FLUCTUATIONS OF FUTURES

	Closed April 17	For Week High	For Week Low	Closed April 23	Net Change
April	15.94	16.03	15.58	16.03	+.09
May	15.99	16.15	15.60	16.08	+.09
June	16.04	16.30	15.71	16.15	+.11
July	16.12	16.27	15.77	16.25	+.13
August	15.80	15.88	15.50	15.88	+.08
September	15.45	15.62	15.25	15.62	+.17
October	15.34	15.52	15.08	15.51	+.17
November	15.38	15.53	15.18	15.53	+.15
December	15.46	15.62	15.22	15.56	+.10
January	15.52	15.67	15.29	15.67	+.15
February	15.37	15.50	15.14	15.50	+.13
March	15.49	15.67	15.25	15.67	+.18

MIDDLING SPOT FLUCTUATIONS FOR WEEK

	New York	New Orleans	Liverpool
Friday, April 18		Closed	
Saturday, April 19		Closed	
Monday, April 21	16.00	15.33	Closed
Tuesday, April 22	15.85	15.21	8.53
Wednesday, April 23	16.30	15.61	8.48
Thursday, April 24	16.50	15.76	8.70

SPOT FLUCTUATIONS AND STOCKS

Markets	Apr. 16	Apr. 23	Sales	Stocks This Week	Stocks Last Year
Galveston	16.00	16.00	848	260,597	298,854
New Orleans	15.68	15.61	555	418,307	293,754
Mobile	15.10	15.15	....	10,346	22,349
Savannah	15.36	15.33	57	39,993	26,966
Norfolk	15.63	15.56	30	48,399	67,459
New York	16.30	16.30	....	99,157	153,739
Augusta	15.13	15.13	125	76,047	70,433
Memphis	15.10	14.85	3,122	306,361	190,259
St. Louis	15.00	14.85	....	11,403	18,725
Houston	15.90	15.90	2,203	744,847	526,003
Dallas	15.40	15.40	1,034	.....	.....

BASIS MIDDLING

	Saturday, April 19	Saturday, April 12
10 markets average	15.16	15.65
Memphis	14.75	15.35

PREMIUM STAPLES

First Sales from Factors Tables at Memphis

Grade Strict Middling	Prices Nominal
1⅛-in	17.25 –17.60c.
1 3/16-in	19.25 –19.75c.
1¼-in	23.25 –23.75c.

CURRENT SALES

	For Week (5 Days)	Prev. Week	Week Before
Memphis total	2,831	6,169	6,275
F.o.b. included in total	1,726	5,206	4,347
10 markets	12,370	21,317	25,277

MEMPHIS RECEIPTS, SHIPMENTS, ETC.

	For Week	Last Year	Year Before
Net receipts	3,845	7,655	4,202
Gross receipts	15,549	18,932	12,282
Total since Aug. 1, net	906,972	822,514	636,142
Shipments	28,760	25,535	16,910
Total since Aug. 1	1,585,307	1,580,371	1,267,415
Total stock	312,184	192,482	202,262
Decrease for week	13,512	5,603	4,628

AVERAGE PRICE APRIL-MAY SHIPMENT HARD WESTERN COTTON

F. o. b. New England

	Middling	St. Middling
1 1/16 in	18¼–18¾c.	19 –19½c.
1⅛ in	19 –19½c.	20•–20½c.
1 3/16 in	20¼–21¼c.	22¾–23¼c.
1¼ in	24 –25c.	26 –27c.

Basis on New York, May, 16.08c.

DIFFERENCES ON AND OFF MIDDLING
WHITE GRADES

	Dallas	Memphis	Montgomery	Augusta	Average
M. F	1.05†	.90†	1.00†	1.25†	1.07†
S. G. M	.90†	.65†	.90†	1.00†	.89†
G. M	.75†	.50†	.75†	.75†	.72†
S. M	.50†	.35†	.50†	.50†	.50†
S. L. M	.75*	.75*	.85*	.75*	.75*
L. M	1.75*	1.50*	1.75*	2.00*	1.70*
S. G. O.**	3.00*	2.50*	2.75*	3.25*	2.80*
G. O	4.00*	3.50*	3.75*	4.25*	3.78*

YELLOW TINGED

G. M	.50*	.50*	.50*	.50*	.50*
S. M	1.00*	1.00*	1.00*	1.00*	1.00*
M.**	1.75*	1.50*	1.50*	1.50*	1.60*
S. L. M	2.50*	2.00*	2.25*	2.25*	2.27*
L. M.**	3.25*	3.00*	3.00*	3.00*	3.15*

YELLOW STAINED

G. M	1.50*	1.50*	1.50*	1.50*	1.50*
S. M.**	2.25*	2.25*	2.50*	2.50*	2.35*
M.**	3.00*	2.75*	3.50*	3.50*	3.15

BLUE STAINED

M. G.**	1.75*	1.25*	1.75*	1.75*	1.65*
S. M.**	2.25*,	2.00*	2.75*	2.75*	2.40*
M.**	3.00*	2.50*	3.75*	3.75*	3.18*

**Grades not deliverable on contract. †On Middling
*Off Middling.

EGYPTIAN COTTON

March-April Shipment c.i.f.	Boston	Change
Fully good fair Sak	30.35	—0.05
Fully good fair to good uppers	22.25	—0.05
(By John Malloch & Co.)		
Alexandria Exchange, April 23		
May Sak	28.01	—0.03
June uppers	19.86	—0.02

Wool

OHIO, PENNSYLVANIA AND WEST VIRGINIA (IN GREASE)

Fine delne	$0.30 – $0.31	¾ blood	$0.30 – $0.31
Fine clthg	.24 – .25	¼ blood	.30 – .31
½ blood	.30 – .31		

TEXAS AND CALIFORNIA (CLEAN BASIS)

Texas, 12 months	$0.73 – $0.75
California, Northern	.65 – .68

PULLED—EASTERN (CLEAN BASIS)

AA	$0.78 – $0.80	B-Super	$0.60 – $0.65
A-Super	.68 – .70	C-Super	.53 – .55

MONTANA, IDAHO AND WYOMING (CLEAN BASIS)

Staple fine	– $0.75
Staple ¾ bld	$0.71 – .73
Fine and fine medium	.70 – .72
½ blood	.63 – .65
¼ blood	.58 – .60

MOHAIR—DOMESTIC

Best Carding	$0.40 – $0.43
Best combing	.57 – .60

MOHAIR FOREIGN (IN BOND)

Turkey fair, average	$0.35 – $0.38
Cape firsts	.35 – .38

FOREIGN CLOTHING AND COMBING (CLEAN BASIS IN BOND)

Australia:	
70s	$0.65 – $0.70
64s	.53 – .55
58s-60s	.48 – .50

(IN GREASE)

Montevideo:	
58-60s	$0.25 – $0.26
56s	.25 – .26
50s	.24 – .25
Buenos Aires:	
4s, 40-44s	$0.21 – $0.22
5s, 36-40s	.18 – .19

FOREIGN CARPET (GREASE BASIS IN BOND)

China: Combing No. 1	$0.22 – $0.23
China Filling Fleece	.21 – .22
Szechuen ass't	.21 – .22
Cordova	.18 – .19
Scotch black face	.22 – .23
East India: Kandahar	.30 – .32
Vican'r	.33 – .35
Ioria	.33 – .35
Aleppo	.33 – .34

Worsted Yarns

ENGLISH SYSTEM WEAVING

2-20s, 36s	$0.95 – $0.97½
2-24s, 40s	1.05 – 1.07½
2-26s, 44s	1.15 – 1.17½
2-28s, 46s	1.20 – 1.22½
2-30s, 48s	1.25 – 1.30
2-32s, 50s	1.30 – 1.32½

(Single yarns 5c. less than above)

2-36s, 58s	$1.45 – $1.47½
2-40s, 60s	1.50 – 1.52½
2-40s, 64s	1.52½ – 1.55
2-50s, 66s	1.77½ – 1.82½
2-60s, 70s	2.20 – 2.25

ENGLISH SYSTEM KNITTING

2-20s, 44s in oil	$1.05 – $1.07½
2-20s, 50s in oil	1.15 – 1.17½
2-20s, 56s in oil	1.25 – 1.27½
2-20s, 60s in oil	1.35 – 1.37½
2-20s, 64s in oil	1.40 – 1.42½
1-15s, 46s dyed	1.17½ – 1.20
1-15s, 48s dyed	1.20 – 1.22½
1-15s, 50s dyed	1.22½ – 1.25

(Oil yarns 17½c. less)

FRENCH SYSTEM

1-20s, 58s	$1.25 – $1.27½
1-20s, 60s	1.30 – 1.32½
1-26s, 64s	1.35 – 1.37½
1-30s, 60s Warp	1.47½ – 1.50
1-30s, 64s Warp	1.50 – 1.52½
2-30s, 64s Fancy mixes	1.75 – 1.80
2-40s, 64s Zephyrs	– 1.70
1-50s, 66s	1.70 – 1.72½
2-50s, 66s	1.85 – 1.87½
1-60s, 70s	2.15 – 2.17½
2-60s, 70s	2.30 – 2.35

FRENCH SPUN MERINO WHITE

1-30s, 50-50-58s on cops	$1.05 – $1.10
1-40s, 50-50-60s on cops	1.25 – 1.27½
1-40s, 50-50-64s on cops	1.27½ – 1.30
1-40s, 50-50-64s Australian cops	1.30 – 1.35

Underwear mixes, 3c. additional.
Solid color, 35c. additional.

◆

Tops and Noils

TOPS—BOSTON

Fine (64-66s)	$0.98 – $1.[illegible]
Half-blood (60-62s)	.96 – .9[illegible]
High ¾ blood (58s)	.90 – .92
Aver. ¾ blood (56s)	.83 – .8[illegible]
Low ¾ blood	.78 – .82
High ¼ blood (50s)	.75 – .78
46s S. A. and N. Z.	.68 – .72
44s S. A and N. Z.	.65 – .6[illegible]
40s S. A and N. Z.	.63 –

TOPS—BRADFORD, ENG. (APRIL 21)

Fine (70s)	30½d	¾ bld. (56s)	21½d
Fine (64s)	28d	½ bld. (50s)	17½d
½ bld. (60s)	25½d	Cross-bred (46s)	15½d
¼ bld. low (58s)	23½d		

NOILS—BOSTON

Fine	$0.55–$0.58	High ½ bld.	$0.38–$0.40
Half-bld	.48– .50	Low noils	.33– .35
Aver. ¾ bld.	.44– .46	Medium colored	.30– .35
Fine colored	.40– .43		

Wool Substitutes

WOOL WASTE

Lap, fine white	$0.85 – $0.90
Lap, fine colored	.58 – .63
Hard ends, fine white	.62 – .65
Hard ends, ¼ blood white	.45 – .48
Hard ends, fine colored	.30 – .33
Hard ends, medium colored	.23 – .28
Card, fine White	.35 – .40
Burr, fine Carbonizing	.38 – .43

OLD WOOLEN RAGS (GRADED FOR MFRS.)

Merinos, Coarse Light	$0.06½ – $0.07
Merinos, Fine Dark	.04½ – .05
Merinos, Fine Light	.15½ – .16½
Serges, Blue	.08½ – .09
Serges, Black	.08 – .09
Serges, Red	.11 – .11½
Knit, White	.32 – .33
Knit, Red	.16 – .17
Knit, Light Hoods	.17 – .17½
Worsted, Light	.05½ – .06
Worsted, Blue	.09 – .09½
Worsted, Black	.08 – .09

Silk Yarns

THROWN SILK (60 day basis)

Japan organzine, 2 thd. grand XX in skeins	$5.90
Japan organzine, 2 thd. sp. crack in skeins	5.55
Japan crepe, 3 thd. grand XX in bobbins	5.70
Japan crepe, 3 thd. sp. crack on bobbins	5.55
Japan crepe, 4 thd. crack on bobbins	5.50
Canton crepe, 3 & 4 thd. ns. 14/16 on bobbins	3.55
Tussah tram, 2 end on cops	2.40
Hosiery tram, 3 thd. Japan XXX	6.15
Hosiery tram, 5 thd. Japan, grand XX	5.50
Hosiery tram, sp. crack XX	5.25
Hosiery tram, crack XX	5.10
Hosiery tram, XX	5.05

SPUN SILK YARNS—(Terms: net 30)

40/2	$4.25	60/2	$4.55
50/2	4.35	62/1	3.30

Raw Silk

(60 day basis)

Japan filature, grand XX, 13/15	$4.55
Japan filature, sp. crack XX, 13/15	4.50
Japan filature, crack XX, 13/15	4.40
Japan filature, XX, 13/15	4.35
Japan filature, best X, 13/15	4.25
Canton filature, new style, 14/16	2.35
Canton filature, new style 20/22	2.20
Tussah filature, 8 cocoon	1.50
Grand XX (Yellow) 20/22	4.45
Grand XX (White) 20/22	4.40
Sp. crack (Yellow) 20/22	4.40
Sp. crack (White) 20/22	4.35
Crack (Yellow) 20/22	4.30
Crack (White) 20/22	4.25

NATIONAL RAW SILK EXCHANGE

	Close April 16	For the Week High	For the Week Low	Close April 22	Net Chg.
April	4.12	4.20	4.00	4.06	—.06
May	4.12	4.12	3.95	4.00	—.12
June	4.04	4.05	3.93	3.95	—.09
July	4.04	4.05	3.90	3.91	—.13
August	4.04	4.04	3.90	3.91	—.13
September	4.02	4.02	3.90	3.91	—.11
October	4.04	4.04	3.90	3.92	—.12
November	4.04	4.04	3.90	3.91	—.13

April 16 to April 22—Total contracts, 266. Total number of bales, 2,660. Total approximate value $1,596,000.

Domestic Rayon

VISCOSE PROCESS

Denier	Filament	First	Second
75	18	$2.35	$1.65
75	30	2.45	1.75
100	18	1.95	1.60
100	40	2.00	1.65
125	18	1.45	1.25
125	36	1.50	1.30
150	24	1.10	1.05
150	32	1.15	1.10
150	36	1.20	1.15
150	60	1.35	1.30
150	75	1.50	....
170	24-27	1.15	1.10
170	60	1.35	1.30
200	30	1.05	1.00
200	32	1.10	1.05
200	60	1.30	1.25
300	44	.95	.90
300	60	1.00	.95
400	72	1.10	.95
450	54	1.00	.95
600	72-96	1.00	.95
900	100-144	1.00	.95

NITRO-CELLULOSE PROCESS

Denier	First Qual.	Second Qual.	Denier	First Qual.	Second Qual.
35	$3.50	$3.25	125	$1.45	$1.25
50	2.75	2.50	140	1.15	1.10
75	2.35	1.65	150	1.15	1.10
100	1.95	1.60	160	1.15	1.10
			175	1.15	1.10

CUPRAMMONIUM PROCESS

Denier	Filament	Price	Denier	Filament	Price
15	25	$4.15	40	30	$3.15
25	25	3.65	52	30	3.00
30	25	3.40			

(Due to diversified offerings prices for higher denier are not listed.)

ACETATE PROCESS

Denier	Price	Denier	Price
45	$2.75	120	$1.90
55	2.55	150	1.60–1.85
75	2.25–2.70	200	1.55
100	2.00–2.45	300	1.50

Rayon Waste

Open bleached waste	$0.22 – $0.25
Open unbleached waste	.18 – .20
Bleached thread waste (mfs.)	.14 – .15
Bleached thread waste (nisc.)	.... – .11
Colored thread waste	.08 – .10
Colored clips	.... – .12

CONVERTED RAYON WASTE

Bleached tops	– $0.52
Unbleached tops	.... – .44
Bleached noils	.... – .19
Bleached garnets	.... – .20
Unbleached garnets	.... – .18
Colored garnets	.... – .16

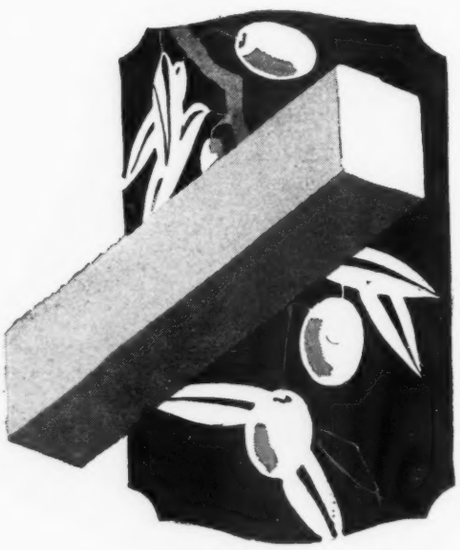
Silk Waste

Kibizzo Kikai Grand XX	$0.85
Kibizzo Kikai Triple Extra	.92
Frison Grand Double	.90
Pierced Cocoons	1.12

"Rest... on these Laurel's" PROFITABLY

TEXTILE manufacturers, the country over, have found they can "rest" safely, profitably on *Laurel Brand* products. They never vary. The name is their assurance of purity and uniformity.

Constant care and supervision at every step of production account for *Laurel's* record of success. Perhaps this is the reason why mercerizers, knitters, dyers—manufacturers in every branch of the textile industry show increasing preference for *Laurel Brand.*



More than twenty years' experience and a fully equipped laboratory are available to help you solve unusual problems. You, too, may be able to "rest profitably on *Laurel's.*"

Laurel Soap Mfg. Co.

INCORPORATED

WM. H. BERTOLET & SONS

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See interesting display, Booths 51 and 52, Knitting Arts Exhibition, May 12 to 16, 1930.

SOAPS

For Scouring and Fulling

Pure Green Olive Soap
Genuine Olive Fig Soap
Palm Soap
Tallow Soaps
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Oleine Scouring Soap
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Chips, Solid Packed, Bars, Powder

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All Strengths—All Types
Castor Oil (Soluble Castor)
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Tallow (Soluble Tallow)
Corn Oil (Soluble Corn)
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(One will answer your purpose)

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Laurel Textile Oil
Soluble Oils
Turkey Red Oils (Acid, Neutral, Alkaline finished)
Soluble Wax
AA Softener
Cream Softener WN (for making Back-filling paste)
Brilliant Softener 3B (for Mercerizers)
Olive Oil Softeners
Cream Softeners
Olive Savon Oil (Softener and Black Intensifier)

HEADQUARTERS FOR

Pure Commercial Olive Oil
Neatsfoot Oil
Lard Oil
Red Oil
Castor Oil
Palm Oil
Olive Oil Foots
Gelatine and Glue

See also Page 371, Consolidated Textile Catalogs

KNITTING, SILK, and RAYON OILS

Crystal Rayon Oils (for every rayon purpose)
Ruxite (Soluble Rayon Oil)
Silk Oil BW (for Back-winding)
Stainless Knitting Machine Oil
Laurel SXG Oil
Neatsfoot Oil
Soluble Neatsfoot Oil

DYEING AND PENETRATING OILS

Hydrosol
Soluble Pine Oils
Monolo Oil (for silk dyers)
Penetrating Oil C

FULLING AND SCOURING COMPOUNDS

Nebosol (Fulling and Scouring Compound) Metrosol (Fulling and Scouring Oil) Hydrosol.

HOSIERY FINISHES AND SCROOPS

Hetrosol
No-Stik

PRODUCTS for SPECIFIC PROCESSES

Rayon Oils
Silk Throwster's Oils
Wool Oils
Soluble Wool Oils
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Worsted Emulsions
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Cordage Oils
Fat Liquor Compounds
Silk Boil Off Oils (for all types hosiery)
Benzine Soaps
Bradford Wool Finish
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Waterproofing Soaps
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Textile Treatment Specialists since 1909 Laurel

"Sports Silk Week" Set for Early May

THE importance of "Sports Silk Week" as a means of stimulating all the different divisions of industry which relate to spun silk fabrics and finished goods, was stressed at a luncheon held at the Vanderbilt Hotel, New York City, April 22. The luncheon was attended by representatives of 24 trade associations, including both manufacturing and distributing divisions.

Chairman at the luncheon was Ralph Corbett, executive director of the Spun Silk Research Committee which is conducting "Sports Silk Week." In his address, Mr. Corbett urged the trade representatives present to get their association to give the maximum of cooperation to this campaign, pointing out that it will mean increased business for all concerned. He said the event is so broad that it can stimulate demand for a wide range of merchandise, and urged that it be utilized as a means of securing additional purchases.

Dr. Baker Speaks

Dr. Hugh P. Baker, of the United States Chamber of Commerce, was the chief speaker. He emphasized the growing tendency in American business toward organization of the various industries, and said the manufacturers in each line were becoming more "industry conscious" and inclined to recognize that concerted effort makes for progress. He added that bankers are in favor of this trend, and that now the financial groups are determining the credit of a man largely on his ability to get together with the trade associations and to aid concerted trade effort in his particular industry.

Dr. Baker told of the December conference with President Hoover at the White House, which, he said, helped toward the recovery of business following the market crash in November.

"The chief feature of that gathering was that it served as a means of arranging for the assembly of accurate data on business trends," he said. "This data can bring more order in industry and will serve toward leveling the peaks and valleys in business and will modify the trend toward depressions."

Cooperation Urged

Other speakers were Thomas B. Hill, president of the Silk Association of America, Inc., and David N. Mosessohn, executive chairman of the Associated Dress Industries of America, who stressed the value of "Sports Silk Week" and urged all trade associations to cooperate.

"Sports Silk Week" opens May 5 and will run for several weeks, different periods being observed by different cities and stores. A total of 1,126 department stores—one in each of 1,126 cities throughout the United States—are staging this national promotion which is calculated to produce more active business and cut down waste in merchandising effort by coordinated offering of all types of sports merchandise, from silk piece goods to wearing apparel, accessories, sports equipment and even sports motor cars.

This event has assumed greater importance than originally planned on account of the disappointing sales volume resulting from the lateness of Easter and the unusually poor weather conditions which led to a small volume of consumer shopping.

The event aims to stimulate demand for following manufactured products: sportswear, blouses, beachwear, underwear and pajamas, junior wear, children's wear, fabric millinery, ready-to-wear, silk piece goods, fabric hand bags, fabric shoes, scarfs, sports jewelry, men's neckwear and summer furniture.

Americans Buy Wool, Foreigners Whistle

A German correspondent, writing to Textile World, states that while in recent years wool growers the world over have had an easy life, receiving good value for their wools, the standard of life in European countries has come down considerably and the wool industry everywhere should now capitalize for the general good the cheap wool available.

Criticizing what he considers the attitude of some American buyers in the primary markets "who very often without any necessity drive up prices" he states that he has seen American buyers at the London auctions pay such fancy prices for the wool they wanted that other foreign buyers could express astonishment only by the famous whistling.

"There are reports in my hand from some primary markets for carpet wools which state that the exporters have American orders on their hands at limits which are far above those of European countries." He makes a plea that American buyers should not overpay for wools, that they keep step with other consuming centers, since there is plenty of wool available.

Burlaps Ease Under Slight Demand

Burlap futures on the New York exchange were slightly easier at midweek, due to quietness in the outside market and lower cables from Calcutta. Contracts closed one to two points below the previous day.

The 8 oz. 40s for spot, afloat, and May-September shipment were 5.45c. The 10½ oz. 40s for spot, afloat, and May-June shipment were 6.70c.; July-September, 6.80c.

Silk Ass'n of Canada Holds Regional Meetings

Montreal, Que.—The Silk Association of Canada is holding meetings in various sections of Canada for the purpose of discussing matters pertaining to the industry. Norman E. D. Sheppard, the new secretary of the organization is being introduced to the members.

Commercial Factors Corp. to Factor Corticelli Silk Co.

An arrangement for the factoring of the Corticelli Silk Co.'s sales by Commercial Factors Corporation was culminated April 21. It was announced in an official letter to the trade that the agreement becomes active on May 1.

Textile Calendar

International Exposition, Textile Exhibitors Association, Mechanics Building, Boston, Mass., April 28-May 3, 1930.

•

Textile Research Council, Joint Conference, University Club, Boston, Mass., April 30, 1930.

•

National Association of Cotton Manufacturers, Annual Meeting, Copley-Plaza Hotel, Boston, Mass., April 30-May 1, 1930.

•

Textile Division, A.S.M.E., National Meeting, Hotel Statler, Boston, Mass., May 2, 1930.

•

American Cotton Manufacturers Association, Thirty-fourth Annual Convention, Carolina Hotel, Pinehurst, N. C., May 6-7, 1930.

•

Blackstone Valley Mills Association, Community Hall, Farnumsville, Mass., May 7, 1930.

•

Southern Textile Association, Eastern Carolina Division, Semi-annual Meeting, Selma, N. C., May 9, 1930.

•

Knitting Arts Exhibition, Commercial Museum, Philadelphia, May 12-16, 1930.

•

National Association of Hosiery and Underwear Manufacturers, Annual Meeting, Philadelphia, May 14, 1930.

•

Wool Institute, Annual Meeting, New York, on or about May 20, 1930. (Exact date not yet set.)

•

Philadelphia Textile School Alumni Association, Outing and Annual Dinner, Philadelphia, June 6, 1930.

•

Cotton Manufacturers Association of North Carolina. Annual Convention, Grove Park Inn, Asheville, N. C., June 17-18, 1930.

•

National Knitted Outerwear Association, Annual Meeting, Toronto, Canada, June 19-20, 1930.

•

Southern Textile Association, Annual Meeting, Ocean Forest Hotel, Myrtle Beach, S. C., June 27-28, 1930.

•

Ninth Southern Textile Exposition, Textile Hall, Greenville, S. C., Oct. 20-25, 1930.

•

Textile Division, A.S.M.E., National Meeting, Poinsett Hotel, Greenville, S. C., Oct. 22, 1930.

•

Southern Textile Association, Semi-Annual Meeting, Poinsett Hotel, Greenville, S. C., Oct. 23, 1930.

It requires no strength to turn on the heat

A child can "operate" a radiator. And a child could operate the slow motion mechanism of the new Wildman Full Fashioned Hosiery Machine. That is one of the many distinctive features of this new Wildman product.

Write for further information.

WILDMAN MFG. CO., *Full Fashioned Division,* Norristown, Pa.

To Present Plans For Scientific Research

Plans for scientific textile research, to be conducted by a cooperative organization representative of the whole industry, will be presented to official delegates of national associations of textile manufacturers by officers and directors of Textile Research Council, Inc., at a conference to be held at the University Club, Boston, Wednesday, April 30. The Council, which was organized in 1926, has been engaged in promoting interest in fundamental and applied technical textile research, and believes that the time is now ripe for consideration of the definite plan that has been prepared, and which includes tentative by-laws of an organization to finance and administer a permanent foundation.

George L. Gilmore, president, will preside at the morning session, starting at 10:30 o'clock. Charles H. Clark, secretary, will present an outline of the research plan and organization as approved by the directors, and Dr. W. F. Edwards, vice-president of the Council, will explain a proposed research information service and library. The subject will be further elaborated by W. D. Appel, chief of Textile Section, Bureau of Standards, and Prof. George B. Haven, Massachusetts Institute of Technology. E. T. Pickard, chief of Textile Division, Department of Commerce, will report regarding the Merritt, or Textile Foundation, bill and its legislative outlook.

Following the luncheon there will be an executive session, President Franklin W. Hobbs of the National Association of Wool Manufacturers acting as chairman, for general discussion of the proposed research plans, with adjournment in time for the afternoon session of the National Association of Cotton Manufacturers at the Copley-Plaza Hotel.

Among the national associations of textile manufacturers that have appointed delegates to the conference are the following: National Association of Cotton Manufacturers; American Cotton Manufacturers Association; National Association of Finishers of Cotton Fabrics; National Association of Wool Manufacturers; Wool Institute; Institute of Carpet Manufacturers of America; American Association of Textile Chemists and Colorists; Southern Textile Association; National Knitted Outerwear Association.

American Cotton Association Year Book

The recently issued 1929 year book of the American Cotton Association, shows the results of the Better Farming Campaign conducted among the cotton growers of 10 southern States last year.

An analysis of 18 reports of two acre field demonstrations in six States shows an average yield per acre of 641 lb. lint cotton at an average net productive cost of 4.84c. per lb. This, according to the book, is the lowest productive cost figure ever obtained in the South and was secured without offer of prizes.

The intensive system of agriculture, as carried on by the association, resulted in an average yield of 889 lb. of lint cotton per 2-acre demonstration field in nine States, at a net cost of 6.55c. per lb. This compares with the government estimate of 155.3 lb. yield per acre for 1929.

This season the association is expanding the system to 100-acre cotton field demonstrations for large crop operations.

Globe Knitting Works Has Never Shut Down

The Globe Knitting Works, Grand Rapids, Mich., has never shut down and is running actively at the present time. An item published in TEXTILE WORLD's "news about mills" on April 5 made a statement to the contrary which was in error through confusion of Globe's hosiery department with its underwear business. As is generally known the Globe has been making a full line of underwear since 1897. The hosiery plant is only a small part of the company's business and, following the strike last January, that department was reorganized under the name Kent Hosiery Co. with Earle A. Clements, Jr., as general manager. Mr. Clements, Sr., is president and general manager of the Globe Knitting Works. The Kent Hosiery Co. has started up after a two-month shut down. The Globe will finance it until such time as it can stand on its own feet. We are indebted to the executives of the Globe Knitting Works for the information which permits us to correct an erroneous impression.

Cotton-Textile Institute Announces 54 New Fabrics

Fifty-four samples of new cotton fabrics suitable for a wide range of fashionable apparel are included in the summer issue of The Cotton-Textile Institute swatching service. Intended as a supplement to the spring edition published earlier this year the current issue "illustrates the new development and takes into particular consideration the cotton fabrics brought out in the spring Paris openings as well as those accepted at Palm Beach during the resort season." The samples included in this latest issue were chosen by fashion authorities from the staffs of various magazines.

Boston Wool Receipts

Receipts of domestic and foreign wools at Boston, also imports at Philadelphia and New York for the week ended April 19 based upon data compiled by the Market News Service of Bureau of Agricultural Economics, Department of Agriculture, are as follows:

Domestic	411,000	21,246,000	16,700,000
Foreign	3,113,000	30,827,000	51,729,000
Total	3,524,000	52,073,000	68,429,000
IMPORTS AT PRINCIPAL PORTS			
Boston	3,113,000	30,827,000	51,729,000
Philadelphia	502,000	22,201,000	30,877,000
New York	1,593,000	20,506,000	30,713,000
Total	5,208,000	73,534,000	113,319,000

Printing Colorists Elect Wilfred Hilton President

The National Association of Textile Printing Colorists held their annual meeting Saturday, April 19 at the Narragansett Hotel, Providence, R. I. At the business meeting held prior to the banquet the following officers were elected for the ensuing year: President, Wilfred Hilton, of the Rockland Finishing Co., Garnersville, N. Y.; vice-presidents, James E. Balderson, Frederick W. Stanton, H. C. Copithorne, Edwin Farnsworth and Edward W. Roogner; treasurer, Leon Wheeler, Jewett City (Conn.) Textile Novelty Co.; secretary, Frederic L. Babcock, *Fibre & Fabric*, Cambridge, Mass.

The speaking following the banquet was informal, the important feature being an explanation by the inventor, Richard Ruddall, of Cheney Bros., of an improvement in the engraving of copper rolls by the "jacquard engraving machine." This machine automatically engraves printing rollers at approximately 30% of the cost of the present method. It is said to be in use in the Cheney Bros. plant, who hold the rights on silk printing, and is being tried out in cotton printing plants in Passaic, N. J., and in Massachusetts. Mr. Ruddall was introduced to the meeting by C. A. Staye, head of the printing department of Cheney Bros., who also discussed developments in novelty printing since 1880.

"The use of synthetic resin in textile printing" was touched upon briefly by Stewart F. Carter, consulting chemist of Passaic, N. J., who described a method of having the elements of the resin present in the printing material, and the passage over the drying cans, developing the resin as a fixing agent.

President Hilton spoke on the necessity of some improvements in bleaching and finishing operations. William Woosnam of B. F. Perkins & Son, Inc., makers of textile machinery, Holyoke, Mass., related his experiences covering a recent visit to Russia on a tour of textile investigation. About 50 members of the association were present.

Sleaziness in Full-Fashioned Knitting

The Textile Machine Works, Reading, Pa., have recently made a study of the various causes of sleaziness in full-fashioned knitting and have published an excellent report in booklet form. The causes outlined in this booklet include uneven silk, tension irregularity in winding, unsuitable winding solution, unsatisfactory conditioning, incorrect yarn tension in knitting, dirty felts and moistening troughs, dry silk, rebounding sinkers, too much clearance between verge plate and sinker butt, misalignment of parts, worn sinkers, insufficient knocking over, incomplete degumming, too many stockings in dyeing net, overworking during dyeing, and improper boarding. The report goes into detail on each of these causes and recommends methods for their elimination. Knitters will doubtless benefit from this research.

The most secure, the most profitable hosiery mills today are those operating modern Reading Full-Fashioned Machines.

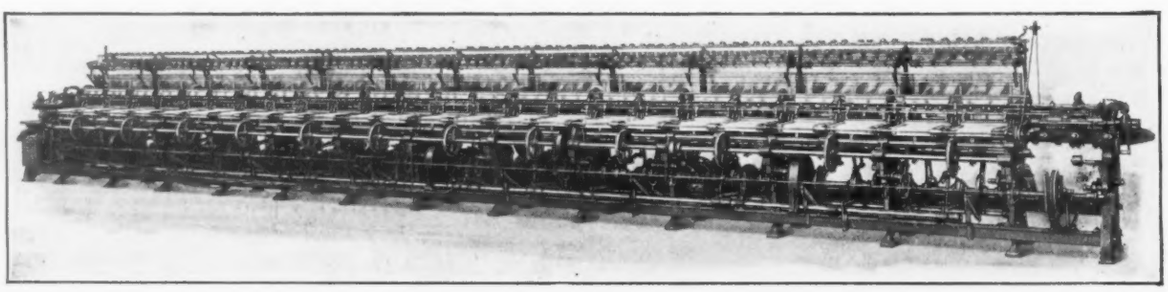
Their fortunate position is no accident.

The Reading Machine is the acknowledged leader in the full-fashioned field and has made millions for America's leading stocking manufacturers.

Look the industry over and you will find that . . .

mills operating Reading Full-Fashioned Knitting Machines are always in a better position physically and financially to meet market conditions

TEXTILE MACHINE WORKS · READING · PENNA.



The Reading Full-Fashioned Knitting Machine as it stands today—after 32 years of development—is the lowest priced, highest producer ever offered.

Summer Course in Textile Research at M.I.T.

A course in textile research and analysis will be offered at the textile laboratory, Massachusetts Institute of Technology, Cambridge, Mass., this summer. The work begins June 17, and includes a series of 30 illustrated lectures, supplemented by approximately 100 hours of laboratory work.

The latest developments in microscopic equipment, together with detailed discussion of its proper care and manipulation for textile work, will be included, as well as the actual operation of the apparatus under usual conditions. In addition, the course will cover methods of testing textiles as to strength, stretch, moisture regain, porosity, abrasion, crimp, twist, etc.

For those likely to be actively engaged in research, or who may have occasion to interpret the results of such work, either from direct testing or as the material may be found in technical journals, a certain amount of time will be devoted to discussion of textile report writing, graphical interpretation of data, and precision of measurements.

The lectures will be given each morning from 9:15 to 11:15 (Monday to Friday inclusive) for the three weeks. Laboratory will be offered from 1 to 4 p.m. on the same days for a period of six weeks for a limited number of students. Further information is attainable from the summer-session office at the Massachusetts Institute of Technology, or from Professor E. R. Schwarz, Room 3-312, textile laboratory, who is in charge of the course.

21 Dutch Cotton Men Here to Study U. S. Cotton Mills

President Lincoln Baylies of the National Association of Cotton Manufacturers welcomed a delegation of 21 cotton manufacturers from Holland to New England on their arrival in Boston April 21. The group is on a tour of cotton mills in this country. They arrived in New York on the "Rotterdam" April 19.

Pequot Mills of Salem, Mass., was the first mill visited by the party which is sponsored by the Netherland-American Chamber of Commerce. In Providence April 22 they visited the Franklin Process Co. and mills of the Lonsdale Company in the Blackstone Valley. The party then went South, and arrived in Charlotte, N. C., Tuesday morning for a visit to mills there.

Commerce Dept. to Add Textile Expert to Boston Office

In accordance with authority contained in its recently approved appropriation bill, the Commerce Department is making plans for the addition of a textile expert in its Boston office. Congresswoman Rogers of Massachusetts who led the movement to have the item inserted in the bill has been informed by Dr. Julius Klein, Assistant Secretary of Commerce that the addition to the Boston office will be made soon after July 1.

It is Mrs. Rogers' opinion that the New England textile industry needs to develop along lines that will be non-competitive with the southern mills. She believes that a trade expert in the Boston office will be able to make valuable suggestions as to the type of production best suited to the New England mills.

Texas Tech Textile Dept. Holds Open House

On Friday and Saturday April 11 and 12, the Textile Engineering Departments of Texas Tech held its second annual open house. Chas. Woolridge, senior in Textile Engineering had charge of plans for the show. Numerous fabrics designed and manufactured by students were on display. One fabric of particular interest was a wool bannket made from wool grown on the college campus by the Department of Animal Husbandry. This wool was spun and dyed in the school colors of scarlet and black and woven into a blanket.

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Textile Patents

LOOMS, Filling replenishing mechanism for. 1,752,403. Richard G. Turner, Worcester, Mass. Assigned to Crompton & Knowles Loom Works, Worcester, Mass.

LOOMS, Filling replenishing mechanism for double-shuttle. 1,752,405. Richard G. Turner, Worcester, Mass. Assigned to Crompton & Knowles, Loom Works, Worcester, Mass.

LOOMS, Lay-driving mechanism for. 1,752,459. William W. Robertson, Worcester, Mass. Assigned to Crompton & Knowles Loom Works, Worcester, Mass.

LOOMS, Let-off mechanism for. 1,752,488. Elbridge R. Holmes, Worcester, Mass. Assigned to Crompton & Knowles Loom Works, Worcester, Mass.

LOOMS, Stopping mechanism for. 1,751,979. William Crutchlow, Fullerton, Pa.

RING - SPINNING and doubling frame. 1,753,119. James Jolly, Deane, Bolton, England.

ROVING frames and the like, Differential motion for. 1,752,708. Walter C. Stewart, Gastonia, N. C. Assigned to Emanuel Frohman, Gastonia, N. C.

RUG and method of making the same. 1,752,287. Gertrude Belcher, Hollywood, Calif. Assigned to Maud Bailey Johnson, Hollywood, Calif.

SPINNERETS, Method and tool for cleaning. 1,752,689. Olof Ohlson, West Newton, Mass.

SPINNING machine. 1,752,869. Joseph Van Den Abeele, Ghent, Belgium.

STOCKING. 1,752,587. Walter D. Butz, Norristown, Pa. Assigned one-half to Louis N. D. Williams, Elkins Park, Pa.

STRETCHING and guiding apparatus, Automatic. 1,753,033. Antonio A. M. Taveira, Providence, R. I. Assigned to The Textile-Finishing Machinery Co., Providence, R. I.

TENSION device for winding machines. 1,752,195. David Palin, Pawtucket, R. I.

TENSION regulator. 1,752,147. Lynn B. Case, Highland Park, N. J. Assigned to John Waldron Corp., New Brunswick, N. J.

THREAD carrier. 1,752,754. Harold F. Paget, Philadelphia, Pa. Assigned to Haines Hosiery Mills, Inc., Philadelphia, Pa.

THREAD cutter. 1,752,611. Theodore F. Naumann, Pawtucket, R. I. Assigned to Seekonk Lace Co., Pawtucket, R. I.

TWISTER tube for spinning frames. 1,752,878. Anthon Ambye, Andover, Mass. Assigned to Davis & Furber Machine Co., Andover, Mass.

WINDING mechanism particularly adapted for pattern-setting frames. 1,752,738. Bicknell Hall, Quincy, and Edgar F. Hathaway, Wellesley, Mass. Assigned to Shawmut Engineering Co., Dorchester, Mass.

Boston Tercentenary Show to Feature Textiles

Already 15 textile and allied industries have engaged space for the Tercentenary Industrial Exposition to be held under the auspices of the Associated Industries of Massachusetts, in the Mechanics Building, Boston, Sept. 29 to Oct. 11. Among the textile exhibitors will be: American Printing Co., Fall River, Mass.; Bliss, Fabyan & Co., Boston; Davis & Furber Machine Co., North Andover, Mass.; Farr Alpaca Co., Holyoke, Mass.; Holliston Mills, Inc., Norwood, Mass.; Ludlow (Mass.) Mfg. Associates; Mt. Hope Finishing Co., North Dighton, Mass.; Naumkeag Steam Cotton Co., Salem, Mass.; Plymouth Cordage Co., North Plymouth, Mass.; Wamsutta Mills, New Bedford, Mass.; American Steel & Wire Co., (three booths); Crompton & Knowles Loom Works (two booths); Graton & Knight Co., Johnson & Bassett, Inc., and the M. J. Whittall Associates (three booths); all of Worcester, Mass.

Delaware and New Bedford Quote New Rayon Prices

The Delaware Rayon Co., of New Castle, Del., and its related firm the New Bedford Rayon Co., of New Bedford, Mass., this week announced new prices on certain numbers. The Delaware Co. announced the following new prices on Delray yarns, effective at once:

Denier	Fil.	First	Second
150	24	1.10	1.05
200	30	1.05	1.00
300	44	.95	.90
450	60	.95	.90

The New Bedford Co. quoted new prices as follows: 150 den. 24 fil. first grade $1.10 per lb., second grade $1.05.

Navy Dept. Issues Bids for Cottons

The Bureau of Supplies and Accounts, Navy Dept., Washington, D. C., will open bids, at 10 a.m. May 6, for 8,500 yd. bleached cotton sheeting, high count, single cuts, 72-in. wide, for shipment to Hampton Roads, Va., and 1,200 yd. of the same material for shipment to Puget Sound, Wash. Hampton Roads also wants 3,000 yd. of a similar sheeting, unbleached, while 1,100 yd. is wanted by Puget Sound.

On the same date, bids will be opened for 20,000 yd. lightweight, and 30,000 yd. heavy-weight, black enamel cloth, 50 to 52-in. wide.

All-Bemberg Lace Announced

Production of an all-Bemberg lace by Rhode Island Lace Works, Inc., is announced by W. H. Pitman, sales manager. This lace is said to be a rich Chantilly with fine body, unusual durability and luxurious appearance. Goldenberg Bros. and Co. and J. K. Stiefel & Co., importers, will have exclusive distribution rights.

Sees Industrial Migration from Philadelphia Ending

PHILADELPHIA.—In the future fewer textile manufacturing concerns in this city will move their plants to other sections, according to C. Marlin Bell, general manager [illegible] Textile Manufactu[illegible] a time leaders in [illegible] were apprehensive [illegible] ber of plants that [illegible] Philadelphia whic[illegible] tions. Mr. Bell a[illegible] has definitely slac[illegible] he believes few m[illegible] considering it at [illegible]

Under Mr. Bel[illegible] recent years the [illegible] important strides [illegible] as one of the mo[illegible] influential groups [illegible] turers. One of [illegible] being started unde[illegible] Bell is a departm[illegible] service, the resul[illegible] viewpoint of ma[illegible] Bell asserts, are [illegible] believe that adva[illegible] section are as attra[illegible] by any other.

He states that [illegible] partment of the a[illegible] textile worker m[illegible] for employment b[illegible] free of charge, [illegible] tions from hundr[illegible] have been worki[illegible] where wages are [illegible] here. Many of th[illegible] states, learned t[illegible] ample the manufa[illegible] hosiery, in other s[illegible] but have recently [illegible] there and came to [illegible] tile Manufacturer [illegible] ply for a position [illegible] the higher level o[illegible]

The new depart[illegible] will seek not only [illegible] bers of the associ[illegible] Philadelphia locat[illegible] attract textile m[illegible] sections to locate [illegible]

Through its [illegible] association, Mr. B[illegible] endeavoring to ma[illegible] ter place for profi[illegible] turing. One of t[illegible] association is hel[illegible] the district is in [illegible] over among their [illegible] a staff of assist[illegible] trained in this wo[illegible]

Mr. Bell states [illegible] has under advisen[illegible] of an auto freight [illegible] While it has not [illegible] there is an equal[illegible] done, Mr. Bell sta[illegible] every angle of th[illegible] studied. The main reason this step is being considered is because drivers of trucks, a large tonnage of Philadelphia textiles being shipped by this means each day to New York, were unionized and it was felt that higher wages would mean higher truck costs to textile manufacturers.

TEXTILE CALENDAR

Knitting Arts Exhibition, Commercial Museum, Philadelphia. May 12-16, 1930.

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Piedmont Section, A.A.T.C.C. Winter Meeting Greensboro, N. C.

New ≈ Revolutionary Advances

in various attachments, shapes and types of steam, vapor, hot water and electric boarding equipment for hosiery of all kinds—

WILL BE ON DISPLAY AT KNITTING ARTS EXHIBITION MAY 12 to 16, COMMERCIAL MUSEUM, PHILA.

These extremely new ideas represent the latest advances in equipment designed to vastly increase your manufacturing facilities.

Do not miss the revolutionary improvements in boarding equipment exhibited at the Adjustoe Booths 295, 296, 319, 320.

Adjustoe METAL DRYING FORM

Steam • Vapor • Hot Water • Steam and Vapor Combination ELECTRIC

PHILADELPHIA METAL DRYING FORM COMPANY

MAIN OFFICE and SHOWROOM:

123-25 North Fifth Street, Philadelphia, Pa.

Canadian Representatives: W. J. WESTAWAY & CO., Ltd., Hamilton, Ontario

possible to produce the whole design by cutting the cards for the first half in duplicate and reversing the duplicates for weaving the upper half of the repeat. This reduces by half the amount of time and expense for card cutting.

[In his next article Mr. Shinn will describe methods of geometric ornamentation.]

Goods Needed—Certain centers heard from customers, who indicated that merchandise would be necessary before long, and stated they would be in the market "shortly." How these same people will fare when it comes actually to placing orders is a question. Suc[illegible]ld up until late well into March. [illegible]y deliveries are known and most In a few cases limited amount of [illegible]r additional cuts

in to Goods

[illegible]o., of New York [illegible]n appointed sole products of the [illegible]iston, Me., weavs, sheetings and to an announce[illegible]mer company. [illegible]rangement which [illegible]ect with the new [illegible]n of the Hill mill previous selling [illegible]n & Co. handled [illegible]y years prior to [illegible]n the sale of the [illegible]nsferred to Cat[illegible]pany has acted as [illegible]ing the past seven

[illegible]28, when control passed into the [illegible]entral Power Co., [illegible]ldest cotton mills [illegible], has been under[illegible]ganization. A re[illegible]ig plans resulted.

[illegible]Co. Takes [illegible]Co. [illegible]nt

[illegible]n of the firm of [illegible]of Dec. 31, 1929, [illegible]s now being con[illegible]oper & Co., who [illegible]export department [illegible]tact.

[illegible]m will be estab[illegible]oor of 22 Thomas The personnel of [illegible]emain unchanged. [illegible] will continue as B. L. Wood, who [illegible]lled on New York [illegible]nue in that ca-

[illegible]nent will offer all [illegible]by Minot, Hooper [illegible] & Co. with the [illegible]lucts of the New [illegible]lls and the Whit[illegible]: export business [illegible]has been carried on under the Ipswich trade mark, will be continued as formerly.

Temporarily, Minot, Hooper & Co. will use the name of Lawrence & Co. in their foreign business, and on direct business will trade under the name of Lawrence & Co., Export Dept., Minot, Hooper & Co. Successors.

Business News

Tagliabue to Move to New Building

C. J. Tagliabue Mfg. Co., Brooklyn, N. Y., announces the acquisition of the American Tobacco Co. property on Park Ave., extending from Nostrand Ave. to Sanford St., Brooklyn.

The Tagliabue Co. has been industrially prominent in Brooklyn for many years and in moving from Bush Terminal, its present location, another great stride in its progress is apparent.

TAG industrial and laboratory instruments include indicating, recording and controlling instruments for temperature, pressure, humidity, time, condensation and liquid level, laboratory and industrial thermometers, hydrometers and oil testing instruments.

From its manufacturing plant in Bush Terminal, the company enlarges to more than double its present facilities in its projected removal to Park Ave. The new building will be occupied about July 1. It is a five story, basement and pent house, modern concrete, fire-proof structure. The plot measures 200x234 ft. and the building provides approximately 300,000 sq.ft. of working floor space. From the point of introduction of raw material to the completion of finished products, efficient, mobile, straight-line production has been the watchword.

Located on the third floor, the executive offices will command a centralized approach to every department. A large reception room and show room are provided on this floor where permanent exhibits of TAG products will be on display.

A large modern cafeteria will be located on the third floor for the general office and factory employes. The completely equipped hospital is to be conveniently located on the first floor, easily accessible to the entire plant.

The building itself is within easy accessibility of rail centers and steamship docks.

The laboratories and experimental divisions have been given a generous allotment of space which they deserve.

Bell Telephone Service Opens to South America

Regular telephone service between North and South America has been inaugurated by the American Telephone & Telegraph Co. This service extends to all Bell system telephones in the United States and all telephones in Cuba, as well as to all important points in Canada and Mexico. In South America it includes the telephones of Argentina and of the cities of Santiago, Chile, and Montevideo, Uruguay. The daily service period is from 9 a.m. to 5 p.m., New York time.

Acquires Three Dye Companies

The American Cyanamid Co., New York, has acquired Wetterwald & Pfister Co., Inc., Wettersol Dyestuff Corp., and Dye Products & Chemical Co., Inc., whose businesses will be consolidated with the Calco Chemical Co., Inc. These companies have specialized for some years past in vat colors for printing and dyeing cotton, silk and rayon, and have devoted particular attention to the application of these colors. The consolidation therefore brings together their specialized knowledge in the vat color field with Calco's extensive manufacturing facilities.

The entire personnel will join the Calco staff to take charge of the vat color department. The headquarters of the Calco Chemical Co., Inc., are at 286 Spring St., New York. Calco was acquired by American Cyanamid early in 1929.

Appointed Eastern Sales Manager, U. S. Bobbin & Shuttle Co.

Carl French has been appointed sales manager for the eastern division of U. S. Bobbin & Shuttle Co. Mr. French is well acquainted with the problems of textile men from long experience in the textile industry itself, and from his association with U. S. Bobbin & Shuttle Co.

G. G. Slaughter to Represent Obermair

Gibbons G. Slaughter, Investment Bldg., Charlotte, N. C., has been appointed southern representative of the American Obermair Co., manufacturers of package dyeing machines, Long Island City, N. Y.

Newquist Appointed Sales Manager of Reliance Electric

Ralph R. Newquist has been appointed sales engineer of the Chicago office of the Reliance Electric & Engineering Co., Cleveland, Ohio, manufacturers of alternating and direct current motors.

Changes in Fafnir Distribution

Group Parts, Inc., Syracuse, N. Y., has just been appointed distributor of Fafnir products in that territory, according to announcement by the Fafnir Bearing Co., of New Britain, Conn.

The Fafnir company also states that the Southern Bearing & Parts Co., distributor for the standard line of Fafnir bearings for the last several years in Birmingham, Ala., has now undertaken the distribution of Fafnir transmission equipment, succeeding the Moore-Handley Hardware Co.

De Walt Adds Electric Hand Saw

Announcement has been made that the DeWalt Products Corp. of Lancaster, Pa., manufacturers of high speed electrical equipment for cutting wood, metal and stone, have acquired the Wodack electric hand saw, one of the pioneers in the electric hand saw field, also the Wodack electric combination mortiser and router.

Dry Goods Economist To Be Published Monthly

The *Dry Goods Economist*, published by the United Business Publishers, Inc., will be published monthly, starting with the July issue.

Harland J. Wright, for several years general manager of the *National Dry Goods Reporter* will become vice-president and general manager of the new *Economist*, with offices at 239 West 39th Street, New York City. Ernest C. Hastings, at present editor-in-chief, will remain in this capacity.

Westinghouse Correspondence Course in Lighting

About 6,000 students have been enrolled and are now taking the correspondence course in general illumination conducted by the Westinghouse Lighting Institute, Grand Central Palace, New York City, which has been made available, without cost, to those interested in lighting.

Representing what is probably the largest attempt ever made for mass education in one subject by an industrial concern, the course, covering every phase of illuminating engineering, has been established to qualify employes of public utilities, manufacturers and merchants in the fundamentals of good lighting practice and the modern developments of the art.

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Obituary

Ludwig Littauer

Ludwig Littauer, president of Ludwig Littauer & Co., Inc., cotton and rayon yarn merchants, died April 21 in his 69th year. Mr. Littauer had been connected with the yarn business for about 40 years and in addition to cottons had been active in rayon yarns in recent years. He was born in Germany and came to this country at an early age. The firm with which he became affiliated in the cotton yarn business was established in 1869 in Greene Street, then the center of the cotton yarn trade. Mr. Littauer became associated with the company in 1885 under the name of Moeller & Littauer. The business continued under this name until Jan. 3, 1906, when Mr. Moeller retired. A few years later the yarn firm of Ludwig Littauer & Co. was incorporated. In 1919, after having been active in the rayon yarn business for some years, the firm obtained the agency for the rayon yarns of N. V. Nederlandsche Kunstzijdefabriek Enka, now the Algemeene Kunstzijde Unie and has continued to represent that firm in the New York territory ever since.

James M. Brawner

James M. Brawner, a former president of the Georgia-Kincaid Cotton Mills, died recently at his home in Griffin, Ga. Mr. Brawner, who was 83 years old, was born in Griffin. After being associated with his father for a number of years in business, he entered the employ of the Griffin Manufacturing Company, and later became president of the Kincaid Cotton Mills. When this mill was merged with the Georgia Mills to form the Georgia-Kincaid Mills, Mr. Brawner, with his two sons-in-law, Frank Ingram and Charles Murray, organized the Highland Mills, of which he became vice-president. He retired from active business two years ago.

Thomas Bailey

Thomas Bailey, pioneer of knit-goods manufacturing in the Mohawk Valley, died at his home here on April 19, aged 73. He was the son of Charles Bailey, founder of the Little Falls Knitting Company, and for a time was connected with that concern. About 37 years ago, however, the father withdrew from this company and with his two sons, Thomas and the late Squire Bailey, founded the Bailey Mills, in Fort Plain, N. Y. In later years Thomas Bailey continued the business alone.

J. Wilmot Jackson

J. Wilmot Jackson, who has been vice-president and assistant treasurer of the Roswell Mills, Inc., of Roswell, Ga., for several years past, died last week in his 39th year at his home in that town. His widow, one daughter and one son survive.